

GATTCTTCCC TCGCTCTTAA GCTTCACCTT TCCAATTTTG CTATCAAATA TTTTCAACA	1440
GCTCTATAAC ACTGCTGATG TCTTGATTGT TGGACGATTT CTTGGTCAAG AATCCTTGGC	1500
TGCAGTAGGA GCGACGACAG CGATTTTGA CCTGATTGTA GGTTTTACAC TTGCTGTTGG	1560
CAATGGCATG GGGATTGTCA TTGCTCGTTA TTATGGGGCT CGGAATTTCA CTAATAACAA	1620
GGAAGCAGTA GCAGCCACCT GGATTTTAGG TGCTCTTTTG AGCATTCTAG TTATGTTGCT	1680
GGGCTTTCTT GGCTTGATC CTCTCTTGCA ATACTTAGAT ACTCCTGCAG AAATCTTCC	1740
TCAATCTTAT CAATATATTT CTATGATTGT GACCTGTGTA GGTGTCAGCT TTGCTTATAA	1800
TCTTTTTCGA GGCTTGTTGC GGTCTATTGG TGACAGTCTA GCAGCCCTGG GATTTCTGAT	1860
TTTCTCTGCC TTGGTTAATG TGGTCTGGA TCTCTATTTT ATTACGCAAT TGCATCTGGG	1920
AGTTCAATCC GCAGGACTTG CTACCATTAT TTCGCAAGGT TTATCAGCGG TTCTCTGCTT	1980
TTATTATATT CGTAAAAGTG TGCCAGAACT CTTGCCACAG TTAAACATT TCAAATGGGA	2040
CAAAAGCTTG TACGCGGATC TCTTGAGCA AGGTTTGGCT ATGGGCTTGA TGAGTTCAAT	2100
TGTATCTATC GGCAGTGTGA TTTTACAGTT TTCTGTTAAT ACATTTGGTG CAGTGATTAT	2160
TAGTGCCAG ACGGCAGCTC GACGCATTAT GACCTTGGC CTCTCTCCTA TGACCGCTAT	2220
TTCTGCATCA ATGACGACCT TTGCTTCTCA GAATCTAGGA GCTAAGCGAC CTGACCGTAT	2280
TGTTCAAGGT CTTGGAATCG GCAGTCGTTT AAGTATATCC TGGGCAGTTT TTGTTTGTAT	2340
TTCTCTCTTT TTGCCAGTC CAGCTTGGT TTCCTTCTTG GCTAGTTCGA CAGATGGTTA	2400
CTTGATAGAA AATGGAAGTC TCTATCTGCA AATCAGTTCA ACCTTTTATC CCATTTTGAG	2460
CCTCTTGTG ATTTATCGCA ATTGCTTGCA GGGCTTGGG CAAAAGATCC TTCCTCTAGT	2520
TTCTAGCTTT ATTGAACTAA TCGGAAAAAT CGTTTTTGTG GTTTTGATTA TTCCTTGGC	2580
AGGATATAAG GGTGTTATCC TTTGTGAACC TCTTATCTGG GTTGCCATGA CAGTTCAACT	2640
GTACTTCTCA TTATTCCGTC ATCCCTTGAT AAAAGAAGGC AAGGCAATCT TGGCAACCAA	2700
AGTGCAATCC TAGTTGGATT TACTGAATAA AATCCATTTC CTCTAGTGAA AATCGAAAAA	2760
ACTTGTGFTC TCTTCTTTAG TTGGTGTG AAAATAGTTT AACAGACTTT TGACTTCTTT	2820
TATATGATAT AATAAAGTAT AGTATTTATG AAAAGGACAT ATAGAGACTG TAAAAATATA	2880
CTTTTGAAAA TCTTTTATG CTGGGTGTT ATTGTAGATA GAATGCAGAC CTTGTCAGTC	2940
CTATTTACAG TGTCAAATA GTGCGTTTGT AAGTTCTATC TACAAGCCTA ATCGTGACTA	3000
AGATTGTCTT CTTTGTAAGG TAGAAATAA GGAGTTTCTG GTTCTGGATT GTAAAAAATG	3060
AGTTGTTTTA ATTGATAAGG AGTAGAATAT GGAAATTAAT GTGAGTAAAT TAAGAACAGA	3120

400

TTTGCCTCAA	GTCGGCGTGC	AACCATATAG	GCAAGTACAC	GCACACTCAA	CTGGGAATCC	3180
GCATTCAACC	GTACAGAATG	AAGCGGATTA	TCACTGGCGG	AAAGACCCAG	AATTAGGTTT	3240
TTTCTCGCAC	ATTGTTGGGA	ACGGTTGCAT	CATGCAGGTA	GGACCTGTTG	ATAATGGTGC	3300
CTGGGACGTT	GGGGGCGGTT	GGAATGCTGA	GACCTATGCA	GCGGTTGAAC	TGATTGAAAG	3360
CCATTCAACC	AAAGAAGAGT	TCATGACGGA	CTACCGCCTT	TATATCGAAC	TCTTACGCAA	3420
TCTAGCAGAT	GAAGCAGGTT	TGCCGAAAAC	GCTTGATACA	GGGAGTTTAG	CTGGAATTAA	3480
AACGCACGAG	TATTGCACGA	ATAACCAACC	AAACAACCAC	TCAGACCACG	TTGACCCTTA	3540
TCCATATCTT	GCTAAATGGG	GCATTAGCCG	TGAGCAGTTT	AAGCATGATA	TTGAGAACGG	3600
CTTGACGATT	GAAACAGGCT	GGCAGAAGAA	TGACACTGGC	TACTGGTACG	TACATTGAGA	3660
CGGCTCTTAT	CCAAAAGACA	AGTTTGAGAA	AATCAATGGC	ACTTGGTACT	ACTTTGACAG	3720
TTCAGGCTAT	ATGCTTGACG	ACCGCTGGAG	GAAGCACACA	GACGGCAACT	GGTACTGGTT	3780
CGACAATCA	GGCGAAATGG	CTACAGGCTG	GAAGAAAATC	GCTGATAAGT	GGTACTATTT	3840
CAACGAAGAA	GGTGCCATGA	AGACAGGCTG	GGTCAAGTAC	AAGGACACTT	GGTACTACTT	3900
AGACGCTAAA	GAAGGCGCCA	TGGTATCAAA	TGCCTTTATC	CAGTCAGCGG	ACGGAACAGG	3960
CTGGTACTAC	CTCAAACCAG	ACGGAACACT	GGCAGACAAG	CCAGAATTCA	CAGTAGAGCC	4020
AGATGGCCTT	ATTACAGTAA	AATAATAATG	GAATGTCTTT	CAAAATCAGAA	CAGCGCATAT	4080
TATTAGGTCT	TGAAAAAGCT	TAATAGTATG	CGTTTCTTGG	TGGAGATATT	TCCTTCAATT	4140
TTGCTACTAT	ATTAAACAAA	AATCAAAAAG	CAAACTAGAA	AGTTATGCTC	AAATAAAATC	4200
TAAATTTGAC	AATGTAAACC	GAGTCGGATA	GCTTTAAGTA	CTGTTTGGAG	GTGGAAGATA	4260
CGATTTTGA	TAGGAATCA	TCAATTTTAG	ATTTTAAAGC	AGCATCAATA	AATTGCTTCC	4320
TTGTTTGTGC	ATAATTTTTT	TATTTAAAAA	ATTATGACma	GAGTGTGCTA	TTCTTTTAT	4380
GAGAGGTGTA	TGAATATGAT	AAATGTATGT	GATAAATGTA	TGTGATGTTG	GAAAAAGAAT	4440
AAAAGAACTT	AGAATATCTT	CAAATCTTAC	TCAAGATAAG	ATTGCTGAGT	ATTTGTCTTT	4500
GAATCAAAGC	ATGATTGCCA	AAATGGAAAA	AGGTGAAAGG	AATATCACGA	ATGGATTTAA	4560
GTAATAAAGC	TTCAAATCTT	AGAAAAAAGT	TGGGAGCTGA	TGGTGAATCG	CCGATAGATA	4620
TTTTTAAATT	GGTACAAAAG	ATAGAAAAAT	TGACGCTGGT	ATTTTATGGA	CTCGGAAAGA	4680
ATATTAGCGG	AGTCTGTTAT	AAAGGAACTC	AGTTCAGTCT	CATTGCAGTC	AATTCAGACA	4740
TGCCATTAGG	AAGGTAAAGA	TTTTCTTTAG	CACATGGACT	GTATCATCTT	TATTATGATG	4800
AGGTGAAGAA	GAGTTCAGTC	AGTCTTATCT	TGATTGGTGA	AGGAGATGAA	ACTGAAAGAA	4860
AAGCGGATCA	GTTTGCTTCT	TATTTTTTAA	TTTTCCCATC	TTCAGTGTAT	AGGATGGTTG	4920

401

AGGAAATCAG AGAAATGCC AATAGAACTC ATCTTGAAGT AGAAGATATT ATAAAATTGG	4980
GTCAGTTTTA TGGTATCAGT CATAAAGCTA TGTTATATAG ATTGAGGAAT GATGGATACC	5040
TTGATGCAGA AGAAATTAAA AATATGGATA TTAGTGTTAT AGAGACAGCT TCAAGATTAG	5100
GCTATGATAC AAGTTTATAT CGTCCTTTGT CAGAAAGTAA AAAAGAAATG GCATTAGGAT	5160
AATATATTAA TTCAACTGAA CAACTTTTAG AAAATAACAG AATTTGCGAA GGGAAGTATG	5220
AGGAACTGTT ACTAGATGCT TTCAGATATG ATATTGTATA TGGGCTAGAT GAAGAGGGGG	5280
GAGTTGTCGT TTGACTAGTC GTGTATTTAT TGATGCAGAT TGTATTTTCA TATTTTATG	5340
GGTTGGCACT GAACATCTTT TAGAAAAGCT CTATTTGGGT AAAATTGTTA TTCCACAAGA	5400
GGTGATGAT GAAATCAATA TACCTACAAT TCCCATTTA AAATCTAGGA TAGATCAGTT	5460
GGTAGCTAAG GGTTCAGCTG AGATTGTGAG CATAGACATT GGAAGTGAAG AATACGCATT	5520
ATATAGAGAT TTAACAAGAA ATCATGATAG TAACAAGATT ATTGGTAAGG GAGAAGGGGC	5580
ATCTATTTC TTAGCGAAAA AGCATAATGG GATATTAGGA AGTAATAACC TAAGAGATGT	5640
TAAATCATAT GTAGAAGAAT TTTCTTTAGA ATATATGACA ACAGGAGATA TACTGATTGA	5700
AGCGTTTAAA CCGTAATTTA TTAAGTGAATA AGAGGGCAAT CATATCTGGA ATAATATGCT	5760
TAAAAAGAGA AGGAAAATTG GTGCAAATTC ATTTTCAGAC TATCTTCGTG GAAGTATTCA	5820
TCAAAATAGA CAAAAATAA TTTGGATAAA TCGAACTCAC TATTCAGGAG GCATATGAGC	5880
AATTCGAAAA AGAAAAGTGT CAAATTGAGC CTATAGGAGT AGAAGTGAAG TAGTAAGTCC	5940
TGCATAGTGG ATGAGAGAAA AGTTCCTCCT GAAGTTTTC TGAAGTATCA GTCGCATGTC	6000
AAACGATATG TAGGGTAATG TGAGAGGGGA TAGCGAGTAG TTTTGGTTA TTTTATCAAA	6060
AACTTATAT TTTATTATAC CGAATGATAA AATATAATAA AAATGATAGA ATAAGGAAAA	6120
AACATGAATG TCAAAAAGAT AATGTCAATT TTTCAATCCT TTTATGTTGA TGTCAGTATT	6180
GAGGAACTGA CTTTGACTTT ACCAATCAGT TTTGTAAAAA GGTTTGAGTA TACTCAAATG	6240
ACTTTTCATA AGGAATCATT TTTATTGATT AAAGAAAAGA GAAGGGGGAG TTTGAGTTCA	6300
TTTGTTACTC AGGCTCGCAC TATGGGTGAA AAAGCCAATA TGGATGTTGT TTTGGTGT	6360
TCGAAGTTAT CAGACAGTGA AAAAAAGCAA TTAAGTCAAG CTAGAGTTCC GTTTGTAGAC	6420
TTTAAGGGAA ACCTCTTCTT CCCTCCATTG GGAAGTAGTAC TCAATGCGAA TGATACTGAA	6480
GTCCCTAAGG AATTAACACC TAGCGAACAA TTAACGTGGA TTGCCTTTT ATTGACAAAA	6540
GGTCAAAAAG TAGTAGATGT TGATTTGCTT TCACAAGTCA CTGGACTTCC AAATCAACA	6600
ATTTATAGGT GTTTGAGGAC TTTTAAAGCT TTATATTGGT TAAACAAGCA AAATAAGCTT	6660

402

TACACATATA CGGTGTCAAA GAAAGAATTA TTCTTAAAT CCGTGTCTATG TTTATTAAAT	6720
CCCATCAAAA AACGGATTTT ATTGCCAGAT GCGGATATAA AGCAGATAAA ATCTGTTTCT	6780
AACCTTCTAT ATGGTGGTGC TTATGCTTTG TCGCATTCAA CTTTTTTAGC TGAAACGGAT	6840
GAAATATTA GCTATGTCAT ATGGCAGAGA AAATTCAATC AGTTATCCTT GCCACTTTCT	6900
CAGCATGTTT TAAATGAAA GATGCTAGAG ATATGGAAAT ATCGTCCTTT TGTATCTGAG	6960
TTTTGGAATG ATTTTAAAA TAATCATGAT AAACAATTTG TAGATCCGAT TTCTCTTTAT	7020
TTGACCTTAA AAGATGATGA TGACCCACGT ATAGAGGAAG AGAGTGAAGC ACTAGAAAAT	7080
ATGATATTAC AGTATCTGGG AGAAGATGAT GCCAGCTAAT ACGAAAGTTA TTTTCAAGA	7140
AATGTTTGGC GATTTTCAGA ACTATTATGT TCTGATTGGG GGAACGCTA CCTCTATCGT	7200
ATTGGATTTCG CAAGGATTTA AAAGTCGCAC AACAAAAGAT TATGATATGG TCATCATTTGA	7260
TGAAGTAAAA AATAAGGAAT TTTATACTAC CTTGAATCAT TTTTGAAT TGGGAGAGTA	7320
TCAAGGAAGT CAGAAAGATG AGAAAGCGCA GCTTTTTCGA TTTACAACAA CTAATCCTGA	7380
GTTTCCTTCT ATGATTGAAC TATTTAGTAT CTTACCAGAA TATCCATTAA AGAAGGACGG	7440
TCGAGAAATT CCCTTACATT TTGACCAAGA TGCTAGTTTA TCAGCCTTAT TATTGGATGA	7500
AGATTATTAT AATATATTGG TGCATGAAAA AGAAACCATT CAGGGGTATT CGGTATTGAG	7560
TAATTGTGGT TTATACTCTT CGAAAATCTC TTCAAACCAC GTCAGCTTCC ATCTACAACC	7620
TCAAACAGT GTTTTGAGCA GCCTGCAGCT AGCTTCCTAG TTTGCTCTTT GATTTTCATT	7680
GAGTATTAAT TATTTTTAAG GCTAAAGCTT GGCTGGATAT GAGGGAGCGC TCTGCCACAG	7740
GTGCTCAAGG TTTAAGTAAG TCCATTAAAA AGCATTTGAA TGACCTTACC CGTTTGACAG	7800
CTTCCTTGCT AGGAGATGAA AAGTTATCGG CTATAACATC AAGTAGTGCG GTAAAAGCAG	7860
ACATGCACCG CTTTGTGATA GAATTAGAGC CTGTGAAGTC AACTATTCTT CAAAATAATG	7920
ACATTTTCATT GGATCAAAAT GAAATTTTGG AAATTTCTGAA AAATTTTCTC GATGGTTAAA	7980
ATAATTGTAG CGAGATGGCT ATATTGAATT CGTCTATATC TGGAACTAG AAAAACTTC	8040
AATTTCAGGA GAAATGAAG TCAATCTTCC CACAATCAAA CGTATAGTAT CAAGGTTTTT	8100
CAAGACCTGA TATTATGCGT TTTTGTCTTT TCAAACTTT TTGCCAGTC TTCGTTTTTA	8160
TCCTCTAGTC ACTTGATTTG TTTCAGGTGG TTTTGTAGTA TAGTAGAATG AAACGAGAAC	8220
AGGACAAATT GATCAGGACA GTCAAATCGA TTTCTAACAA TGTTTTAGAA GCAGAAGTGT	8280
ACTATTCTAG TTTCAATCTA CTATAGTTAA ATCTGCGGTC AAGTCTACTG GTGAATCTAT	8340
GATTGTAATA CTCTTCCAAA ATCTCATCAA CCACGTCAGT CTTGCCTTGC AGTCTGTATC	8400
TTACTGACCA AGCTAGTGAT GGATTTAGAA TAGGTGATTT GGAGCGTCCT ATTAGCTAGG	8460

403

AAATGCTGCT CATAGTCCTT TGCTGAGGCT AGGGTGTTC AACATTCAAC ACTCAACTGG	8520
TTGATCTAGT TGATAGGAAG GGAGTTACTA TAAAATACTC AGGCTTCCAT CATATTTTTT	8580
GAAACGATTG TGTAATCAAA ATGTACCAAT ATTGTAGTAT TGGTACAGAA GATGTTGTGA	8640
ATGGATAAAT ATATCATAAC TGCTATCTCA AAAAGATTTC ATATGTCTGT GCATATATAA	8700
TAGACTTCCT GCAAAACTAG AATCCTAGTT CATGATTGAT AATACCAGCA ATCAAATTCA	8760
TTCTGTAATCC AAAGCGTTTA CGATGATTTC GATAGGTTGT TGAAAACATT TTAAACGTTT	8820
CTACTTTGGC AAAGATGTTC TCAACCTTGC TTCTCTCCTT AGATAGCGCA TGGTTATAGG	8880
CTTTATCTTC AGCTGTTAGC GGCTTGAGTT TGCTGGATTT ACGTGGAGTT TGTGCTTGAG	8940
GACATATCTT CATGAGCCCT TGATAACCAC TGTACGCCAA GATTTTACCA GCTTGTCCTGA	9000
TATTCTTGCA ACTCATTTTG AACAACITCA TATCATGACA ATAGTTCACA GTGATATCCA	9060
AAGAAACAAT TCTCCCTTGA CTTGTGACAA TCGCTTGAGC CTTCATAGCG TGAAATTTCT	9120
TTTTACCAGA ATCATTGCTT AATTCTTTT TTAGGGCGAT TGATTTTAC TTCCGTCGCA	9180
TCAATCATTG CCGTGTCTC AGAACTAAGA GGAGTTCTTG AAATCGTAAC ACCACTTTGA	9240
ACAAGAGTTA CTTCAACCCA TTGGCTCCGA CGGATTAACT TGCTTTCGTG AATACCAAAA	9300
TCAGCCGCAA TTTCTTCATA AGTGCAGTAT TCTAGGCTTA ATTTAGGTTT TCGTCCACCT	9360
TTTGCCTGTT TAAGTTGATA AGCTGTTTTT AATACAGCTA ACATCTCTTT AAAAGTCGTG	9420
CGCTGAACAC CAACAAGACG CTTAAATCGT GTATCAGTTA ATTGTTTACT TGCTTCATAA	9480
TTTCGCAGGG AGTCATTGA CTCTTTGGTA GGTGTCAATG TTTTTCAT CTATCCCGAG	9540
AATTATTTTC CCGCCATTTG TATTGCAAA TGCTGAGTAG GTTCCCAGA AAGACTCTGG	9600
AAGATTGTTT TTAGCTTTTT TGTATTCTAA ATCAACCCCT TCAAATTTTA AGTCCATATT	9660
TTTCCTTTAC ATCTGTTTTT TGTGGTTCTG GTATTGTTC AAGTTGAGTG ATAATATAGC	9720
GAATTGAATT TCGAGAGTTT TTAATCAGTT AATTTCTTTT TTAACCCACT TTAATTGCTT	9780
TTTAAACACG GGTAAAAAA GAAATTAAAG TGGGTTAATT TTTCTTGA	9828

(2) INFORMATION FOR SEQ ID NO: 42:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3369 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 42:

404

CCGCGAAAGA TATTTTGA CAAGAGTTTG GACGTGAGGT CCGTGGCTAT AATAAAGTAG	60
AAGTTGACGA GTTTTGTAGAC GATGTCATCA AGGACTATGA AACCTATGCT GCCTTGGTCA	120
AGTCACTTCG TCAGGAAATT GCGGATTTGA AGGAAGAATT AACTCGTAAA CCGAAACCTT	180
CACCAGTTCA AGCAGAACCC CTTGAAGCGG CAATTACAAG TTCTATGACG AATTTTGATA	240
TTTTCGAAACG CCTGAATAGA TTGGAAAAAG AAGTTTTTGG TAAACAAATT TTAGATAACT	300
CAGATTTTTTA AGTAGTTATT TGAGATGTGC AATTTTGGGA TAATCGCGTG AGGAGAATTG	360
TTTCTCATGA GGAAAGTCCA TGCTAGCACA GGCTGTGATG CCTGTAGTGT TTGTGCTAGG	420
CGAAACCATA AGCCTAGGGA CGAGAAATCG TTACGGCAGT TGAAATGGCT AAGTCCTTGG	480
ATAGGCCAGA GTAGGCTTGA AAGTGCCACA GTGACGGAGT CTTTCTGGAA ACAGAGAGAG	540
TGGAACGCGG TAAACCCCTC AAGCTAGCAA CCCAAATTTT GGTCGGGGCA TGGAGTACGC	600
GGAAACGAAC GTAGTATTCT GACTGCTATC AGCTAGAGCT GTTAGTGGTA GACAGATGAT	660
TATCGAAGGA AGTGGTCTTA GTCACCTCTG GAACAAAACA TGGCTTATAG AAAATTGCAT	720
ATAGGTTGGG GCTGAGAAAT TTTCTCAACC TCATTTTTTA AAGTGGACAT ATAGAAAGGT	780
CTTGCAAGAC TGTAACATGA AAAAAGAATT TAATTTAATT GCAACTGTGG CAGCAGGGCT	840
TGAGGCTGTC GTTGGTCGTG AAGTGCAGGA GTTGGGCTAC GATTGTCAGG TTGAAAATGG	900
ACGTGTTTCTG TTTCAAGGAG ACGTGAGAGC TATTATCGAA ACCAACCTTT GGCTTCGGGC	960
AGCAGATCGT ATCAAAATTA TCGTAGGAAC GTTCCCAGCT AAGACTTTTG AAGAGCTATT	1020
TCAGGGAGTT TTCGCTTTGG ATTGGGAAAA TTATTTACCA CTTGGAGCTC GGTTCCTGAT	1080
TTCAAAAGCT AAATGTGTTA AGTCCAAACT TCACAATGAG CCCAGTGTTC AGGCTATTTC	1140
TAAGAAAGCT GTTGTCAGA AATTGCAGAA ACACATATGCT CGCCCAGAAG GGGTTCCTCT	1200
GATGGAGAAT GGCCCAGAGT TTAAGATTGA GGTCTCTATT CTCAAAGATG TGGCAACTGT	1260
CATGATTGAT ACGACCGGGT CTAGCCTCTT TAAACGTGGT TATCGTACCG AAAAAGGTGG	1320
CGCTCCTATC AAGGAAAATA TGGCAGCAGC CATTTTACAA CTTTCTAACT GGTATCCAGA	1380
CAAGCCTTTG ATTGATCCGA CCTGTGGTTC GGGGACTTTC TGTATTGAGG CAGTTATGAT	1440
TGCTAGAAAG ATGGCGCCAG GTCTTCGTCG CTCTTTTGCA TTTGAGGAAT GGAAGTGGAT	1500
CAGCGATCGC TTGATTCAAG AAGTGCACAG AGAAGCGGCT AAAAAAGTAG ACCGTGAGCT	1560
TGAGCTGGAT ATCATGGGCT GTGATATTGA TGCTCGCATG GTGGAAATG CTAAGGCCAA	1620
TGCTCAGGTA GCTGGTGTG CAGGAGACAT TACTTTTAAG CAGATGCGCG TGCAGGATTT	1680
ACGTTCCGAT AAAATCAATG GAGTAATCAT TTCCAATCCG CCTTATGGTG AACGTTGTGTC	1740
AGATGATGCA GGGGTGACCA AGCTCTATGC TGAGATGGGG CAAGTATTTG CACCGCTGAA	1800

405

AACTTGGAGC AAATTTATCC TGAAGCTTTT GAAAGCAAGT ATGGTAGCCA	1860
AGCAGATAAG AAGCGTAAGT TATACACGG AACCTTGAAA GTGGATCTAT ATCAATATTT	1920
TGGTCAGCGT GTCAAACGGC AAGAGGTAAG ATAGAAAGGG ATACTCATGA GTAAAAAAG	1980
ACGAAATCGT CATAAAAAAG AAGGTCAAGA ACCGCAATTT GATTTTGATG AAGCAAAAGA	2040
GCTAACAGTT GGTCAAGCTA TTCGTAAAAA TGAAGAAGTG GAATCAGGAG TCTTGCCTGA	2100
GGATTCCATT TTGGACAAGT ATGTTAAGCA ACACAGAGAT GAAATTGAGG CGGATAAGTT	2160
TGCGACTCGT CAATACAAAA AAGAGGAGTT CGTTGAACT CAGAGTCTGG ATGATTTAAT	2220
TCAAGAGATG CGTGAGGCTG TAGAGAAGTC AGAAGCTTCT TCGGAGGAAG TTCCATCTTC	2280
TGAAGACATC TTACTACCCT TGCCCTCTGA CGATGAGGAG CAAGGCTTGG ATCCTCTATT	2340
GCTAGATGAT GAAATCCAA CAGAAATGAC TGAAGAAGTG GAAGAGGAGC AAAACCTTTC	2400
TCGTCTGGAT CAAGAGGACT CAGAAAAGAA AAGTAAAAA GGCTTTATTT TGACCGTTTT	2460
GGCGCTTGTA TCAGTAATTA TTTGTGTCAG TGCTTATTAT GTCTACCGTC AAGTGGCTCG	2520
TTGCGACTAAG GAAATTGAAA CTTCTCAATC AACTACAGCC AATCAATCGG ATGTGGATGA	2580
TTTTAATACA CTTTATGAGC CCTTTTACAC AGATAGCAAT AAAACGGCTT TGAAAAATAG	2640
CCAGTTTGAT AAAGTGAAGT AACTCAAGAC TTTACTTGAT AAGCTGGAAG GTAGTCGTGA	2700
ACATACGCTT GCCAAATCTA AATATGATAG TCTAGCAACG CAAATCAAGG CTATTCAAGA	2760
TGTCATAGCT CAATTTGAGA AACCAGCTAT TGTGGATGGT GTGTTGGATA CCAATGCCAA	2820
AGCCAAATCG GATGCTAAAT TTACGGATAT TAAACTGGA AATACGGAGC TTGATAAAGT	2880
GCTAGATAAG GCTATCAGTC TTGGTAAGAG CCAGCAAACA AGTACTTCTA GCTCAAGTTC	2940
AAGTCAAATC AGCAGCTCAA GTTCAAGTCA AGCAAGTTCA AATACGACTA GTGAGCCAAA	3000
ACCAAGTAGT TCAAATGAGA CTAGAAGTAG TCGCAGTGAA GTCAATATGG GTCTCTCGAG	3060
TGCAGGGGTT GCTGTTCAAA GAAGTGCCAG TCGTGTGGC TATAATCAGT CTGCTATTGA	3120
TGATAGTAAT AACTCTGCCT GGGATTTTGC GGATGGTGTG TTGGAACAAA TTCTAGCGAC	3180
TTACAGTTCA CGTGCTATA TCACTGGAGA CCAATATATC CTTGAACGTG TCAATATCGT	3240
TAACGGCAAT GGTATTACA ACCTCTACAA GCCAGATGGA ACCTATCTCT TTACCCTTAA	3300
CTGTAAGACA GGCTACTTTG TCGGAAATGG CGCTGGTCAT GCGGATGACT TAGATTACTA	3360
AGCAGTCGG	3369

(2) INFORMATION FOR SEQ ID NO: 43:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9713 base pairs

406

(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 43:

AAGTTTACAA TTAAATGAA TTAACAATTT TCCCAACTAA AAGCACTCCA GTTACCGCAA	60
CGTTTGTACT GAATGTACTA AATCGCATTC CATCAACTTC ATCTGTTTCG TCAACTTGAA	120
CAGATACTAA TTGAAGATTT AATACTTCTG CTGCCATAGC TAGCTCCTCC TATTTAAATT	180
TTTGGGATTA AGTACTTTAT CCACCCTCAT ATACTCTCTC CACCAGTAAA ATGCAAGCAA	240
TGATACAAAA TAGATTTAAC TATTTTATAT AGCGAAAAC TACAAATTTT TAAGAAATAA	300
TTTTTGCATT CTAAAGATA AAATAGGAAC TTTTAGTAAT AAATATTAAA ATAAATAAAA	360
TAATAGATAC TATAAAATTT GGAAGTATTA ACCCCAAAAG ATTCATATCA TCTATTAAAA	420
TATCCTCTAA AGAGTAGTAT ATTAAAGCCA TAATTTTAAT GTTAAGTAAA AATGCAATTA	480
ATGAAGTAAC AAATGTCAA AATATAGCCT CACCAACTTT AATCTTAACC ATCTGGTAAT	540
TAGAAGTTCC TAAAATTTCA AATTGCTGAA TCTCAATCCT TTCTTGATGC GATGACAAAA	600
ATGCAATTGA AATAATATTT GCAAGTACTA TCAAAATTGG TGCTCCTACA TAGACAATAA	660
ATGCTACTTT TAGCTCTAAA TCACTGTCAT CTTGAAATTG AGATAGTATA TTCTGAGAAA	720
TCATTGAAA ACTAGAAAT AGTAATATAG CTCCTGTAAT TGCAGCACTG ATAGATTTTA	780
TATAAGACTT ACAATATAGT AAATCCACT TCGAAACAAT GAACATAAAA TTATTTCTAA	840
ATATAATTAT AGAAAGTAGT TTGATAAAAC ATGACTGTAT AAAAGGAGAT AATTGATAAA	900
TAATCACAAAT ATCTAAGATT ACAATATTGA ATATTATCTG GGCCTTCGCT AAAATTGTGC	960
TATCTTGGA AATTTGTTGC AAAGAAAGCA ACCAGATAAC ACTAAAACCA GCCAATAGCA	1020
GTATTCTTTT TACTATTGAA AGAACATGCC TTATTTTAGA ACTCTTCCTA TTTCTAATCT	1080
TCTTGAACGT ATAAAAGCAA CCACTTAGAA AGGCTAAAAA TGAAATCAAC ACTACTGTAA	1140
TGATACATCC AACAGCACTC GTTTGAAATT GGATATCAGG TAATATATTT TCCCCGAAAA	1200
AGTATTGTAA AAAATAATAA TAATTTGACG TAACAAATAT AGAGCATAGA TATGCAATAA	1260
AACTAATAAT CGAGGAAATG ATAAAAATCT GTCCCCCAC AAGAAATGAT AGTTGAAGGC	1320
GACTTGCTCC CAACACCTCC AGAAGTTCGT AATCATCTCT AAAAAATTCA ACCAACATAT	1380
TTATTATGTT AGAGAGCACA AAGAATAATG TTAATCTCTC GAATACTATC GGAAACATAA	1440
AAATTGGTTT AGGATCTGGA AGTCCGACAA ATACTTGCGA ATTATCTCA ACATTAATTA	1500
CCCCATTAAC AGCCAATCCC ATAACATAAC TCGAAACAAA AATTACTGGT GAAACGCCTA	1560

407

ACCATTGTTT CTTATTATGT AAAAATTGAT AGTAAACTAA TCTGAGCATC TCTATTCCTC	1620
CGTAGTTGAT TGTACCTCTA AGATTTTATA CAACTCTTCC CCGCTAGGTC TATGAAGTTC	1680
TTTGAAAATT TTTCCATCTT TCAATATTAA TGCACGATCA GTTTTCGAGG CCAATTCTAT	1740
ATCGTGCGTT ACCATAATTA CACACTTACC CGCCCCTACT AACTCTCTCA ATAATTCAAA	1800
AATTACTTCA CGAGAAACGC TGTCTAAAGC CCCAGTTGGC TCATCAGCAA ATATTATATC	1860
ACTATCAGCA ATAACCGCTC TAGCTATAGC AACCTTCTGT TGTTCCTCCAC CAGACAGAGT	1920
TCCAACAAAA TCGTTTAAGC CAGCATTAAG CTTCATTCTT TTGAGTAAGT TTTCTACATT	1980
TTTAATAGTT AATTTTTTTT GTGATAATCG CAAAGGAAGT GCTATATTTT CTATTACCGG	2040
CAGGGAAGGT ATTAAATTGT ATGCTTGAAA TATAAAAGAT ACTTCGTTAC GTCTTATACT	2100
TGACAAATTT GCATTTCTGA TTTTATAGGG GTTGATTCCA TTTAAATTA CTTCCTCACT	2160
TGTTGGTTCA AGCAAACAG AAATACATT TAATAAAGT GACTTTCCAG AACCACTAAT	2220
TCCTAGAATA CTTATAAATT CTCCTCTCGA AGCAGAAAGA GAAACATTTT TCAGCACTTG	2280
CAACGTTTTA TTATTTCTTA GTAAAAATG ATGATACAGC CCTTTCACCTT TTAATATATA	2340
ATCTTTATCC ATATPCTTGC CTCCAATCAC TTAATTTTGA AAAGTGTTCC ATTTTCCAAT	2400
TTATATATAT CAGTGATCTT CTTGTCATTT AAGTCATAAT GATGTGAAAC TTCAATAAAT	2460
GAAATACCTA AATTGAACAG AATATCATGT ATGGAATTG AATTATCATT ATCTAAATTA	2520
GCTGATATTT CGTCAAAATA GTACACTTTA TTATTTCTAA TCAGAGCTCT AGCTAAAGCT	2580
ATTTTTTGTT TTTGACCTCC AGACAAATTA CTACCATTTT CACCACATTG ATAATTTAGT	2640
ATATCTATCT TTTCTAATTC TTCATATAGA TTTACCTTTT TTAACACCTC AATTATCTGA	2700
TCATCTGAAA AATATTCATT TTGAAATAAA GTTACGTTCT CACGAATAGT AGTGTCAAAA	2760
ATATATGGTG TCTGATCAAC TGTGGGTATT GAATCTGAAC TCTTTTTCCC ATGTGATAAC	2820
AAATTTACAT AACCTTTTTG TGGCTTTTAA GAACCATTA TTAATTTTAA AATCGTTGTT	2880
TTCCCACTAC CAGAAAGTTC TGTAAATAAT ACCCTAAATG GTGACTTAAA TGAGAAGTCA	2940
ATACTTAATT TATTTTCTGG TGTAATAGAA TATACAACAT CTTTCATGTG TATCTCATCT	3000
ATTGATGAAG TATACAGTCC GTTATTATCA TGTTCAGCGT CTATAAAATT CTTCTCTCCA	3060
CTTAAGTATT TTA AAAACGG TTTCTTTAAA TCTTTGGTTG TATTTATCTT ATTTAATGAA	3120
TAGGCAATTG ATTGTATCGG CCCTAAAACT TTATCGTTTG CTAAGAAAAT ACCTATCAGT	3180
TCACTAAAAG AAAGGCTTTT ATGATAAATT ACAAATAAC ATCCTACAAC CAAGGGAAT	3240
AGAAAGCAAA AACCTGAAAT TAGTACTGCA ACCAATTTTG AAAGAACCTC TGATCGTTTC	3300

408

AAATTAAAAG TAGAATCTTC TAGTTTATCC AACTTTTTAT CCGACAAACT AATTATTTCT	3360
TTAGTAACAG AATAAGATTT TAATGTCTTA AAACCATTAA AAATTTCTTT TATTATGTGA	3420
GTATACTCTG CATTGCTGTT AGAGTACTCA TTAGCTGAAT TAGACAACAT CTCTTCATA	3480
AAGACAGGTA CTATAATCGG CAATGCTGAT AATACAATAA ATATTATTGA TACTAGGAAG	3540
TTTAAATAAA GCATAAACT TAGAGAGACG ATGAACAACA ATATTGAAGA AATTATTTCA	3600
AAAATTTGTC TAAAATAGTT TTCTTCGATT AATCTCAAAT CATTTGACAA AACTGAAATA	3660
ATAGATGAGT AATCTTTAAC CATTTTCAGAA GAAAGATACT GTTCTCTAAA ATATCCTTGT	3720
TTAATTTTTA CATTATATC TTTAGTTATT GATGCTCCG TTACTTCTAA ATAGTAATTT	3780
GATATATAGA TTGCTGACCA ACCCAGAATA CTTATAGCAC CAAATCTTAG AACGTCAGAA	3840
AATGAGGAAG TCTGATTTAA ACTACCTGCA TATACAATAA TTCCTGAGAG CAAGACACCA	3900
TTAAACGAAG ATAGAAATAT TAAAATCCCC ATTAATATAA GTTTAGTCTT TTTTATAAAT	3960
TTTAAATAAT TCATAAGTTA TTCCTTCCCA CTTCTTCAA GAAATAATTT AAAGTATCAA	4020
TCATTAAGAG AACATCTGAT GGAGTAAAAC CTCCATGACC AGCTGCTTTG TTTAAATACA	4080
ACAACTTTT AACTCCAATA GAATTTAATT TCTTTGACCA CTCTATCACT TCGTTATTAT	4140
TAATATATGG TGCTTTCTCA CCCAAAATAT TAACTATAAC AGTATTTGAG TCTCGTGCCT	4200
TTTCAATATT TTGCATAGGC GAATATGACT TTATATAAGC CTTTACTTCA GGGTCTCTAA	4260
TATCTCCCCA CTCTGCTATT TCGGTCTTAG AAAGAGGATC ATTTGGATTC TGAAGTGTAT	4320
CATAAGGATT TATAAATGGC GAAAATAAGA GAATGCTTTG CAATAAATTT TTTTCTCGT	4380
TCAACACCGC ACCAGCAATT ATTCCACCTG CACTAGAAGT TATTAAACCT AATCGCTTAC	4440
TGTCAAATTAC ATCATTTTCC CTTAAATAAT TTAATCCCTC AATAAAATCT CTGATAGAAT	4500
TCCATTTGTT TAACGCCTTT CCTGAGCGAT ACCATTCAAC ACCCAAATAG CCTCCACCTC	4560
TTACATGAAC TATAGCATAA ATAAAACCTG CATCTATTAT AGATAACATA ATTTCATCTA	4620
AATCAGAATT ATCATTTCTA CCATAAGCCC CATAGACACT TAGAATACAT TTTTCTCTC	4680
TTGGGAGCTC ATCCGTATCT TCACTTTTCC AAAATAAAGA AATCGGTATG CTTACATCAT	4740
AACTGTCTTT TTTAGTCCAA ATCACCTTAG AAAAATATTT AGTATTATTC GATTTTATGA	4800
TGGGTCTTTC AAATTCAGTT TTTAATGTAT TTTCTATTAA ATCAAAACTA AGTATTTTTC	4860
CGTAAAAAGT TCTCCTCTCT AAAAACAGAA GAACACGATC AGAAAATGAA TTTTCATAAA	4920
GTGTTGTCTT TTCATCAAAT GTTATCTTAT TAACACTCAA CTCCCTCAAA CTATTATTTT	4980
TAAATGTAGC AAGATAAAAG ACGGAATTCG CTGCGTTTGA ACAGTCTAAA AGGATATAAC	5040
GTCCTATACA GTGAACTCTT CTAGCCCTAT CTTGATATGG TATAGTAATA GAAACTCTGT	5100

CTCCCGAAGA AGTTTCCCTT AGAATTAGTT GATCTTTCTT TTCTTCAGTT GAAGAGAGCC	5160
CAAGAAAGTA CTGTGCTTTT TCTGTACTAA ATAGAGCGAT ATCTCTAGGT GTTGGGGCTA	5220
CCGTTTCTGT GTAAGAGTGT CTAACAAAAC CCGTCCGGTC GAAACTGTAT AGAAAAATCC	5280
TGCCTTTCTG AAAGTCTACT GACTTTACAA AACAATTATT GCTATCAATG TGGACTATTT	5340
TTAATCGAAA AGAGCATTCG TTTTCTTCAA ACAGTTCCTC TTCTGTAAAG CTATCAAAAG	5400
ATTTATAGAA TAACTTACTT GGCTCCCGT ACTCTTTGGA GCGAGTATAC ATAACACCGA	5460
ATTTACCCAA ATAGAACGAA CTTTCTACTG AAATATCTTC AATGATAAAT AACTCTTCCA	5520
TAGTATATTT TTTTATTCCA ATTAAATTAG TCGTACGCAG TGAGGATACA ACCAAACTA	5580
TATAACTCTC ATCAGATGAA ATCCTAACAT CCTGTAAGAT ACTATCATCT GGCAAAGTAT	5640
ATTTTCCAC ATCAAAGACA ATTTTAAGTG AATTGAATT GTCTAACTG GAAGAATAA	5700
CCTTAGGAAT CCAGTCATTA TCTTCGACAT ACCATTCTT TATTACACCA GTATTGGGTA	5760
TACTCCAATT ATCAAATTGG TACCAATATC GCCCTCTCCT AAATATCAAA GAATTCCATT	5820
TTTTTAATTC CTGAAATGAT GAAGAGATAG ACCTCTTATA GTGTGTTTTT TCCTGTATTG	5880
TATTTAAAAA TATTTCAATTA CTCTGATTCA CAAGTATGAC CCCTTAATAA TGGTATCTAA	5940
ATATTATATT TGAGGAAGAA TCGTCAATTT ATTATCCATT ATTGATACCA ATCCAATTGC	6000
AACACCCGCA AATCCCGAAG CAATATCTGT TGTATCTTT AAACCATTAT CTCCCGCAAT	6060
AACAATCCT TCTTCAATTA CACACAAATA TCTATAAAGT TGTCAATTA ATTTCTTTTG	6120
TCCTGAAAAG TTATCATCGA TATCACTATA TATATTATTA GCAACTTCAA GACCACAAA	6180
TCCGTAAAT AAACCTGGTA ATACACAAA AACTACATCA GTTGCCCTCT CTAAGAAGT	6240
TAAATATTTT AAGTATTTGC TTGACAAGAT TTCTTTATTT CTATTAATAA GTAAAAGCAG	6300
GCCAGCACTT CCAGTTGCTA GATATGGTAG TAATCTATGA CCTTGGCTGT ACTGCAATGA	6360
ATTATTACTA TCTACTTTAT AAGCAACTAA TTCTTTATCT ACAGCCAATT CTAGACCATT	6420
TTTATAGATA CTTTCACCAG TTAATTTATA AGCTTCACCG AAGAGCCAAG CTACCCCTGC	6480
GTGACCATAT AGTAATCCAC CAAAATTCTC ATAAGGATCG TTAATCTGAA CATCACTAGC	6540
GCCAACTTTA CAAAAGTTT CTGGATTTTC TATATAATTT AAAGTATATT CTCTAAGCCT	6600
AATTAGTATT TCTTCTCCTA GTTTATTATC AATTCCCCCT TTAATAAGAA AATACAGTCC	6660
AACCACTAAA ATTCCAGCCT GCCCACTATA TAAATTTTTA TTTTGTGAAT TCTCAAATAT	6720
CTCTATAAAA TGAGTTGTAA AAAGTTCAAC TGCCCGATCT ATCTCCCCAA ATTCATAAAT	6780
GAGCCAGATT GTACCAATTT TACCATCAAA AAGACCAGAA AGGGACGATT TCTTAAATTT	6840

410

ATTTACTGCC TCATTAATAA CCTGTGTTTCG AATCTCATAA TAGTCATCAA ACTTGAAATT	6900
TTTTACTTTC TTAGCTAGTT GTTGATAACT CCAAAGGATA GCTAAATCTG AAAACGCAAT	6960
TCCTTGATTA AAATTCAGAC CATAATAATG AACTGGGAAG AATCTTGATT GAAATTCCTT	7020
ACGCCACTGT CCATAAGTTA GCGTAAACCC TCTCAATAAT TTTATAATAA AATCTTGAT	7080
ATCTTGCTCA CTCTCGATAG TTCTAATCTC ATGCATGGGT TTAAAACTT TTTCTCTGGA	7140
AATATTCTCA ATCTGTGGAC ATTTAGAATC TAGATATGAC AATAAACTTT CTACATAATC	7200
TATATGTTCT CTTGTATAAC CCAAAGACTC AAATAGTTTT TTCTCTCTA TCCTGGTTTG	7260
ACTTACATAG TTGTATGTCA AATCCGATGT AGTTACTAGT GGCATGTATA AATAATGAGC	7320
TATTTGCTCA ATACCATACC AATCTATCTC ACTGGGAAGT GTTCTCGCC ATGCTCTAAA	7380
ACCAGGGGCT GCAACTTTAT GTACAACCTT TTCATCATTT GAAAAGACAG CCTGTTCCTA	7440
CTCTATTATA CTAATCTCAT CTTTCATCCTT AACCAAGATA TTCTCTAAAT GTAAATCTTG	7500
ATGATATACA TTTTCAGAAT GAAACTTATT CGTTAAATCG ATGAGTTTTT CTAATATCTT	7560
TGAAACTCTC AATAGATAAT CTTTGGTCTT ATCAACAAC TCATATAAAG GAAAATTATT	7620
GGTAACCCAT CTATTTAGTG GAACGCCCTT CATATGTTCA ATTCCTAAGA AGGTGTGCTC	7680
CCAGATCTTA CCGTGCCAGT ATATTTTAGG CGTCTCACTC CATTCATTTA GAATTTTATG	7740
TGCTTTGTCAC TCCGAAGCTA ATTTCTCTGA AGAATAAGTA CCATCAAATC CTAGACCTGT	7800
ATACGGTCTA GCCTCTTTTA AAATTATTTT TTCTCCATCT TCTTTTAGCC TAGCATTATA	7860
TATCCCACCA CTGTTTGAAA ATCTAATTGC ATTATCTATA ATAAAGGGAA AGTCTCCCTG	7920
TTTTTTATCT TTCTGTCAA GCCATTTATT CAAAAAGTCA GGGGGCACTA TACCTTTTGG	7980
AATTTTAAAT ACTGGTAAAC GTTCATCTTT AACAACTTCA TCGCCAACAA TTAATTCATC	8040
AATAGCAACC TTCTTTTCAT CATCCCTTGA CGGCCTAAAC ACACCATACC TCAGATATAT	8100
TGGTGCTTCA TCCCAACGTT TATCGCTTAA AATATATGGC CCATATATAT GCTTTAAGGC	8160
ACTTTCTAAC CTTTGCAAAA CCGACTCTAA TTCATTTTGA TTTGGATAAC ATGTAATAAA	8220
TTTACCAGAA AATCCTCGAC TAACCAATTT CCCGTTTCGC ATGATAAATT TGTCTTCTGT	8280
ACTAAGATGT TTAATGGAA TTCGCATTTC ATGGCAAATT TTTGCTACAT CTTGTAACAA	8340
TTTATGTGAA CTGTTATACT CTGAACTAAT GTGTATTTTC CACCCTTGTC TTTCAACAAA	8400
TTTTCCAATA GGGTATTGAT AAACCCACTC ATCATTATTC ATTACTTCGT GCCAATTAAA	8460
AGGCAGACTT ACTTGGTACT TTATGCTAGT ATCTGTACTA TAATCATTAT TAGTGAAAAA	8520
GAAAGGATGC TCCAAATTGA AATTATAATC CATAACAAAA TCTCCAAGAA ATTTTATCAA	8580
ACTTAATATA TCTATAGCTA GACAGACTTA TTAAATAAA AAGGGAGAAT CCTTTGGATT	8640

411

CTCCCCATAT AAGCACTAAC ATTCCAACGT GCACATATTG GAACGACATC CATAACTCCA	8700
GAGAATCTCT AAAGTTTACA ATTTAAATGA ATTAACAATT TTCCCAACTA AAAGCACTCC	8760
AGTTACCGCA ACGATTGTGA CTGAATGTAC TAAATCGCAT TCCATCAACT TCATCTGTTT	8820
CGTCAACTTG AACGATACT AATTGAAGAT TTAATACTTC TTCTGCCATA GCTAGCTCCT	8880
CCTATTTAAA TTTTGGGAT TAAGTACTTT ATCCACCCTC ATTATACTCT CTCCACCACT	8940
AAAATGCAAG CAATTATACA ATGTTGTAC ATAGAAAATA ATGTTTCCGT AACTTTTCAA	9000
AGTAACTTCC ATCTCTCTCC CAAACTGGA AGTTAGTTTT AGAAGTTACC TAAAAATCAG	9060
GTCACCTATT TTAAAAAGC AGCAACTAT AAAGTAGTAG GTTCCACACC AAATGTAGTC	9120
CCATACTGCC CCATAAGTCA GATTTATAGC GCACCATAACC TAAAAACATC CCAAGTGAAA	9180
CATACAAACA CCAAGCTAGA ATGGTTCCTG TATGATGTGC TAAGGCAAAT AAAACACTTG	9240
TCAAAGCAAC TCTGATATCT AATTTTCTGA CCAAATTTCA TAAATTTCT CGATACAGAA	9300
ATTCTTCAAC CATACTCGCA TTGATTAGA ACAATAAAAA TGAAAACCAA GGAATTGAT	9360
GTTGAAGGCC AATTAAGTTT GCTTGATTCG TGCTTCCTTG AGCATGAATC AGACTAAAAC	9420
ATAGACTTAT AATCAGTAGG CTAACAAATT CAACACCAAG CCATTTTCATC CTAGATTTCA	9480
TATTGACCTT ATGCGCTTGT TTGCGTTGGC CATACATCCA TAAAAAGAA ATGAGTGACG	9540
AACCATAGAG AATCTGTAGT ATAGTTTACT CACCGATACA AAGAAATTTT AATAAGTATA	9600
GAGTACCAA TAsGACATTT ACTTGTGGA ATATATAAAC TGGAATTATT CTTTTCATAG	9660
TTACCTCCGA AATAAATCTT CATAATCTAA ATCTAATACC TGCACAATCC TTT	9713

(2) INFORMATION FOR SEQ ID NO: 44:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8657 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 44:

AAAGAAATTG TCAGAGAGTG GCTAGATGAA GTAGCAGAGC GGGCTAAGGA CTATCCAGAG	60
TGGGTGGATG TTTTCGAGCG TTGCTACACC GATACCTTGG ACAATACGGT TGAAATCTTA	120
GAAGATGGTT CAACTTTTGT CTTGACTGGG GATATTCCTG CCATGTGGCT TCGAGATTCG	180
ACAGCCCAAC TCAGACCCTA CCTTCATGTA GCTAAAAGAG ATGCCCTCCT GCGTCAGACC	240
ATTGCAGGTT TGGTCAAACG TCAGATGACC TTGGTACTCA AGGATCCCTA TGCTAACTCC	300

412

TTCAACATTG AGGAGAACTG GAAAGGGCAC CACGAGACTG ACCACACAGA CCTTAACGGC	360
TGGATCTGGG AGCGCAAGTA TGAGGTGGAT TCGCTTTGCT ATCCTTTGCA GTTGGCTTAT	420
CTCCTCTGGA AAGAGACTGG CGAGACTAGT CAGTTTGATG AGATTTTGT CGCAGCGACT	480
AAGGAAATTC TCCATCTGTG GACGGTGGAA CAAGACCACA AGAACTCTCC TTATCGTTT	540
GTCCGAGATA CGGACCGTAA GGAAGACACC TTGGTAAATG ATGGCTTTGG ACCTGACTTT	600
GCAGTGACAG GTATGACTTG GTCAGCTTTT CGTCCGAGTG ATGACTGTTG CCAGTATAGT	660
TACTTGATTG CGTCAAATAT GTTTGCTGTA GTAGTCTTGG GTTATGTGCA AGAAATCTTC	720
GCAGCATTAA ACCTAGCTGA TAGCCAGAGT GTTATTGCTG ATGCCAAGCG TCTTCAGGAT	780
GAAATCCAAG AAGGAATCAA AAACCTACGCT TACACCACCA ACAGCAAGGG CGAAAAGATT	840
TACGCTTTTG AAGTGGATGG CCTAGGAAAT GCCAGCATCA TGGATGATCC AAATGTACCA	900
AGTCTACTAG CTGCGCCCTA TCTGGGCTAC TGTTCGGTCG ATGATGAAGT GTATCAAGCT	960
ACTCGTCGTA CCATTTTGAG CTCTGAAAAT CCATACTTCT ACCAAGGAGA ATACGCAAGC	1020
GGTCTCGGCA GTTCTCATAC CTTCTATCGC TATATCTGGC CAATCGCCCT TTCTATCCAA	1080
GGCTTGACAA CAAGAGATAA GGCAGAGAAA AAATCTTGC TGGATCAGCT GGTGCGCTGC	1140
GATGGTGGTA CAGGTGTCAT GCACGAAAGC TTTCATGTAG ATGATCCGAC CCTCTACTCT	1200
CGTGAATGGT TCTCCTGGGC TAACATGATG TTCTGTGAGT TGGTCTTGA TTACTTGGAT	1260
ATTCTGTAAG GGGCTCGCTT TAGCTCAACC GATTCTTATC AGAATCACAA GTTTACATT	1320
AAAACGTAA AATTTAAAT TAGAATGAGG TTTTACTTCA TGGAAATGT TGTGTACAT	1380
ATTATCTCAC ATAGTCACTG GGATCGTGAG TGGTACTTGC CTTTGTAAAG CCATCGTATG	1440
CAGTTGGTGG AATTGTTTGA CAATCTCTTT GATCTCTTTG AAAATGACCC TGAGTTCAAG	1500
AGTTTCCACT TGGATGGACA AACTATTGTC CTTGATGACT ACTTACAAAT TCGCCCTGAA	1560
AATCGCGACA AGGTCCAACG CTACATTGAC GAGGGCAAAC TTAAAATTGG TCCCTTTTAC	1620
ATCTTGCAAG ATGACTACTT GATCTCCAGT GAAGCCAATG TCCGCAATAC CTTGATTGGT	1680
CAACAAGAAG CTGCCAAATG GGGTAAATCA ACCCAGATTG GCTACTTTCC AGATACCTTT	1740
GGAAATATGG GACAAGCGCC TCAAATCTTT CAAAAATCAG GCATTACGT GCGCGCCTTT	1800
GGTCGTGGTG TGAAGCCGAT TGGATTGAC AACCAAGTCC TTGAAGATGA GCAGTTTACG	1860
TCTCAGTTTT CAGAAATGTA CTGGCAGGGT GTGGATGGTA GTCGTGTTTT AGGTATTCTC	1920
TTTGCCAACT GGTACAGTAA CGGGAATGAA ATTCCAGTTG ACAAAGATGA GGCCTTGACC	1980
TTCTGGAAAC AAAAATGTGC AGATGTGCGT GCCTACGCTT CGACCAACCA ATGGTTGATG	2040
ATGAACGGCT GTGACCACCA GCCTGTACAG AAAAATCTGA GCGAAGCCAT TCGTGTGGCA	2100

413

AATGAACTCT TCCCGGATGT AATCTTTGTT CATAGTTCTT TTGATGAATA TGTTC AAGCT	2160
GTAGAAGGTG CGCTTCCTGA ACAC TTATCA ACTGTTACAG GCGAGTTGAC CAGTCAGGAA	2220
ACAGATGGCT GGTACACACT TGCCAACT TCTTCATCCC GCATTACCT AAAACAAGCC	2280
TTCCAAGAAA ATAGCAACCT CCTAGAGCAA GTGGTAGAAC CCTTGACTAT TATCACTGGT	2340
GGACACAACC ACAAGGACCA GTTGACCTAT GCTTGGAAAA CACTTTTGCA GAATGCGCCA	2400
CATGATAGTA TCTGTGGCTG TAGCGTGGAC GAAGTTCACC GCGAGATGGA AACGCGTTT	2460
GCCAAGGTCA ACCAAGTAGG AAAC TTGT AAAAGTAACT TGCTCAACGA GTGGAAGGGT	2520
AAAATTGCTA CGGATAAGGC TCAAAGTGAC TATCTCTTTA CTGTCATTAA CACAGGCTTG	2580
CATGATAAGG TCGATACTGT CAGCACAGTG ATTGATGTGG CGACTTGTGA TTTCAAGGAA	2640
TTGCACCCAA CAGAAGGCTA CAAAAAGATG GCTGCTCTTA TCTTGCCAAG TTACCGTGTG	2700
GAGGACTTGG ATGGTCGTCC TG TAGAGGCT ACAATCGAAG ACCTCGGAGC TAATTTGAG	2760
TATAATTTAC CAAAGACAA GTTCCGCCAA GCTCGTATTG CTCGTCAAGT GCGCGTGACC	2820
ATTCCAGTTC ACCTAGCGCC GCTTCTTGG ACAACCTTCC AATTGCTGGA AGGAAAACAA	2880
GAACACCGTG AGGGTATTTA CCAAACGGA GTGATTGATA CACCATTCTG AACGGTGAGT	2940
GTGGATGACA ACATCACAGT CTATGACAAG ACAACTCACG AAGCCTATGA AGACTTTATC	3000
CGCTTGAAG ACCGTGGGGA CATCGGAAC GAGTATATCT ATTTCCAACC AAAAGGAACA	3060
GAGCCAATCT TTGCAGAGCT TAAGGGCCAC GAGGTCTTGG AAAACACAGC TTGCTATGCT	3120
AAAATCTTGC TCAACATGA ATTGACCGTG CCTGTCAGTG CGGATGAAAA GCTAGAAGAA	3180
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AACATTCCTC TGGAACCTGA GTTGACTGTC TTCGTTGACA ATCCACAAAT CCGCTTCAAG	3300
ACTCGCTTTA CTAACACTGC CAAGGATCAC CGTATCCGTC TCTTGGTCAA GACTCATAAC	3360
ACGCGTCCAA GCAATGATTC TGAAAGTATC TATGAGGTGG TGACACGACC AAACAAACCA	3420
GCTGCTTCAT GGGAAAACCC TGAAAATCCT CAACACCAAC AAGCTTTTGT CAGTCTGTAT	3480
GACGATGAAA AAGGGGTGAC TGATCCAAC AAGGGATTGA ATGAATACGA AATCCTTGGG	3540
GATAACACCA TTGCCGTGAC CATTTTGCGT GCATCAGGTG AGCTAGGTGA CTGGGGCTAC	3600
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CACCAAGCCC AAGAACGCTT CTCAGCCTAT CGTCGTGCCA AAGCCTTGCA GACACCGTTT	3720
ACCAGCCTTC AGCTTGCTAG ACAGGAAGGA AGCGTGGTTG CGACTGGTAG CCTCTTGAGC	3780
CATTCTGTTT TCAGCATACC GCAAGTTTGT CCAACAGCCT TTAAGGTAGC TGAAAATGAA	3840

414

GAAGGCTATG	TGCTTCGTTA	CTACAATATG	TGTAGTGAAA	ATGTACGTGT	GCCAGAAAGT	3900
CAACATCTCT	TCCTTGACCT	ACTTGAACGA	CCATACCCAG	TTCATTTCAGG	ACTATTGGCT	3960
CCACAAGAGA	TTCGTACAGA	ATTCATCAAA	AAAGAAGAAA	TTTAATTTCA	AAAAGTAAAC	4020
ATCAAAAGAA	AGGAGGGGCG	AAAAAGTAAG	AACTAACTGC	TGATTGCGCC	CTTTTATGGT	4080
AAAAACAATG	ACCATTGCAA	CGATTGATAT	CGGAGGGACT	GGGATTAAAGT	TTGCCAGTCT	4140
GACTCCTGAT	GGGAAAATAC	TGGATAAGAC	AAGTATTTCA	ACGCCTGAAA	ACTTGGAGGA	4200
TTTACTAGCG	TGGCTAGATC	AACGCTTGTC	AGAACAGGAT	TACAGTGGGA	TTGCTATGAG	4260
CGTTCAGGT	GCAGTCAATC	AAGAGACAGG	TGTGATTGAT	GGCTTCAGTG	CGGTGCCCTA	4320
CATCCATGGC	TTTTCTTGGT	ATGAGGCGCT	TAGCTCTTAT	CAGCTACCTG	TCCATTTAGA	4380
AAATGATGCC	AACTGCGTTG	GACTCAGTGA	ACTACTAGCT	CATCCAGAGC	TGAAAATGC	4440
AGCCTGTGTC	GTGATTGGGA	CAGGGATTGG	CGGAGCCATG	ATTATCAATG	GTAGACTTCA	4500
TCGAGGTGCG	CACGGTCTGG	GTGGAGAATT	TGGCTACATG	ACAACCCTTG	CCCCTGCTGA	4560
AAAACCTAAT	AACTGGTCGC	AACTAGCATC	AACTGGGAAT	ATGGTACGAT	ACGTGATTGA	4620
AAAATCTGGT	CATACTGATT	GGGACGGTCG	CAAGATTTAC	CAAGAGGCCG	CAGCTGGTAA	4680
TATCCTTTGT	CAAGAAGCCA	TTGAGCGCAT	GAACCGCAAT	CTGGCGCAAG	GCTTGCTCAA	4740
TATCCAGTAT	CTGATCGATC	CAGGTGTTCAT	CAGTCTGGGT	GGCTCTATCA	GTCAAAATCC	4800
AGATTTTATC	CAAGGTGTCA	AGAAGGCTGT	TGAAGACTTT	GTCGATGCCT	ACGAAGAATA	4860
CACGGTCGCA	CCAGTTATCC	AGGCCTGCAC	CTATCACGCA	GATGCCAATC	TCTACGGTGC	4920
TCTTGCTCAAC	TGGCTACAGG	AGGAAAAGCA	ATGGTAAGAT	TTACAGGACT	TAGTCTCAAA	4980
CAAACGCAAG	CTATTGAGGT	TTTAAAAGGT	CACATTTCTC	TACCAGATGT	GGAAGTGGCT	5040
GTCACTCAGT	CTGACCAAGC	ATCTATCTCT	ATCGAGGGTG	AGGAAGGTCA	CTATCAATTG	5100
ACCTACCGCA	AACCTCACCA	ACTTTATCGT	GCCTTGTCCT	TGTTGGTAAC	AGTTCTAGCA	5160
GAAGCTGATA	AAGTAGAGAT	TGAGGAACAA	GCAGCTTACG	AAGATTTGGC	TTACATGGTT	5220
GACTGTTCTC	GAAATGCGGT	GCTGAATGTG	GCTTCTGCCA	AGCAGATGAT	TGAGATATTG	5280
GCTCTCATGG	GCTACTCAAC	CTTTGAGCTT	TACATGGAAG	ACACTTACCA	GATTGAAGGG	5340
CAGCCTTACT	TTGGCTATTT	CCGTGGAGCT	TATTCAGCAG	AGGAGTTGCA	GGAAATCGAA	5400
GCCTATGCCC	AACAGTTTGA	CGTGACCTTT	GTACCATGCA	TCCAGACCTT	GGCCCACTTG	5460
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CTTCTCATTT	GCGAAGAAAA	GGTTTATGAC	TTGATTGATG	GCATGTTTGC	CACGTTGTCT	5580
AAACTGAAGA	CTCGCAAGGT	CAATATCGGG	ATGGACGAAG	CCCCTTGGT	TGGTTTGGGA	5640

CGCTACCTGA TTCTGAACGG TGTGTGGAT CGTAGTCTCC TCATGTGCCA ACACTTGGAG	5700
CGCGTGCTGG ATATTGCTGA CAAATATGGT TTCCACTGCC AGATGTGGAG TGATATGTTT	5760
TTCAAACCTCA TGTGAGCGGA TGGCCAGTAC GACCGTGATG TGGAAATTCC AGAGGAAACT	5820
CGTGTCTACC TAGACCGTCT CAAAGACCGT GTGACTCTGG TTTACTGGGA TTATTATCAG	5880
GATAGCGAGG AAAAATACAA CCGTAATTTT CGCAATCATC ACAAGATTAG CCATGACCTT	5940
GCATTTGCAG GGGGAGCTTG GAAAGTGGATT GGCTTTACAC CTCACAACCA TTTTAGCCGT	6000
CTAGTGGCTA TCGAGGCTAA TAAAGCCTGC CGTGCCAATC AGATTAAAGA AGTCATCGTA	6060
ACGGGTGGG GAGACAATGG TGGTGAACT GCCCAGTTCT CTATCCTACC AAGCTTGCAA	6120
ATCTGGGCGA AACTCAGCTA TCGCAATGAC CTAGATGGTT TGTCTGCGCA CTTCAAGACC	6180
AATACTGGTC TAACGGTTGA GGATTTTATG CAGATTGACC TTGCCAACCT CTTACCAGAC	6240
CTACCAGGCA ATCTCAGCGG TATCAATCCC AACCCTATG TTTTATCA GGATATTCTT	6300
TGTCGGATTC TTGATCAACA CATGACCTT GAACAGGACA AACCCTACTT CGCTCAGGCT	6360
GCTGAGACGC TTGCTAACAT TAAAGAAAAA GCTGGAACT ATGCCATCTT CTTTGAACT	6420
CAGGCCAGT TGAATGCTAT TTTAAGTAGC AAAGTAGATG TGGGACGACG CATTCTGTCAG	6480
GCCTACCAAG CGGATGATAA AGAAAGTTTA CAACAAATCG CCAGACAAGA ATTACCAGAA	6540
CTTAGAAGCC AAATGAAGA CTTCCATGCC CTCTTTAGCC ACCAATGGCT GAAAGAAAAA	6600
AAGTCTTTG GTTTGGATAC AGTTGACATC CGTATGGGCG GACTCTTGCA ACGCATCAAA	6660
CGAGCAGAAA GCCGTATCGA GGTATTATCTG GCTGGTCAGC TTGACCGCAT CGACGAGCTG	6720
GAAGTTGAAA TCCTACCATT TACTGACTTC TACGCAGACA AGGATTTCCG AGCAACTACA	6780
GCCAACCAGT GGCATACCAT TGCAGACGCG TCGACGATTT ATACGACTTA ATATTCTTCG	6840
AAAATCTCTT CAAACCACGT CAGCTTCCAT CTGCAACCTC AAAACAGTGT TTTGAGCAAC	6900
CTGCAGCTAG CTTCTAGTT TGCTCTTTGA TTTTCATTGA GTATAAAAAA AAGAACACCT	6960
TGCTTGGCGC AGGGTGTTTC GCGTGAAACA GAAGAATTAT CTGGTTTCAA ATGCTACAGT	7020
TAGACAACT TATGATAAAA TAGCAGAAAG TGAATGTTTC CTAAGAGCAA TTGGAGGTAT	7080
TATGCTACAC TTAAATTAG TAAACAAGA AATAGAAGCT GAAAAGCCAG CATCTGTAGA	7140
AGCTTGATC ATTTCCGTCA AATTAAAAA AGGTTGCTAC CGACATATAT AGATTCCAAA	7200
AACAAAAACG TTAGCGGAAC TAGCAGATGT GATTTTATGG AGTTTGTATT TTGCAATGA	7260
TCATGCTCAC GCATTTTCA TGGATAATGT TGAGTGGAGT CATGCAGATT CTTACTTTCTG	7320
TAGCTTTGTT AGTGACGATG TTGAAGAACG TTACACAGAA AATGTCTATC TGGATAGCCT	7380

416

AAGTGTCAAA CAAAAATTTA AGTTTATTTT CGACTTCGGT GATGAATGGC GTTTTGAATG	7440
CCAAGTGCTG AGAGAAATCG AGACAGAGGA CGAAGAAGCT TATCTCGTAC GTTCGGTTGG	7500
AACGTCGCCA GAACAATATC CAGATTATGA TGGTTTGGAC TATGAAGAAT GGTAAAATG	7560
AAATCAGTCT GTGTAGGCTT AGTATTTCAA TAGACTTCCT GCAAACTAG AATCCTAGTT	7620
CATGATTGAT AATACCAGCA ATCAAATTCA TTCGTAATCC GAAGCGTTTA CGATGATTC	7680
GATAGGTTGT TGA AAAACATT TTAAACGTTT TTACTTTGGC AAAGATGTTT TCAACCTTGC	7740
TTCTCTCCTT AGATAGCGCA TGGTTATAGG CTTTATCTTC AGCTGTTAGT GGCTTGAGTT	7800
TGCTGGATTT ACGTGAAGTT TGTGCTTGAG GACATATCTT CATGAGCCCT TGATAACCAC	7860
TGTCAGCCAA GATTTTACCA GCTTGTCGCA TATTTCTGCA ACTCATTTTG AACAACTTCA	7920
TATCATGACA ATAGTTCACA GTGATATCCA AAGAAACAAT TCTCCCTTGA CTGTGACAA	7980
TCGCTTGAGC CTTCATAGCG TGA AATTTCT TTTTACCAGA ATCATTCGCT AATTCCTTTT	8040
TTAGGGCGAT TGATTTTAC TTCCGTCGCA TCAATCATTA CCGTGTCCTC AGAACTAAGA	8100
GGAGTCTTG AAATCGTAAC ACCACTTTGA ACAAGAGTTA CTTCAACCCA TTGGCTCCGA	8160
CGGATTAAGT TGCTTTCGTG AATACCAAAA TCAGCCGCAA TTTCTTCATA AGTGCGGTAT	8220
TCTAGGCTTA ATTTAGGTTT TCGTCCACCT TTTGCGTGT TAAGTTGATA AGCTGTTTTT	8280
AATACAGCTA ACATCTCTTT AAAAGTCGTG CGCTGAACAC CAACAAGACG CTTAAATCGT	8340
GTATCAGTTA ATGTTTACT TGCTTCATAA TTTCGCAGG AGTCTATTGA CTCTTTGGTA	8400
GGTGTC AATG TTTTTTTCAT CTATCCGAG AATTATTTTC CCGCCATTG TATTTGCAAA	8460
TGCTGAGTAG GTTCCCAGA AAGACTCTGG AAGATTGTTT TTAGCTTTT TGTATTCTAA	8520
ATCAACCCCT TCAAATTTTA AGTCCATATT TTTCCTTTAC ATCTGTTTTT TGTGGTTCTG	8580
GTATTTGTTT AAGTTGAGTG ATAATATAGC GAATTGAATT TCGAGAGTTT TTA CTAGTT	8640
AATTTCTTTT TTAACCC	8657

(2) INFORMATION FOR SEQ ID NO: 45:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11384 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 45:

TCTATTTTGG GTATAGACTT ACCTATAAAG AAAAATATCT ATACACTGCC TTAGTAGCTA	60
TACTGAACGA GTCAACAAAA ACGATATATA TTGATGATAT AAATACAGCA AGATTTTTTA	120

417

ACTTCTTTGG CAATGATATT CCTAATTCGT CTTTAAAAA AATTGACTAT ATCGCACCTT	180
CAGAAATTGT TTCATTTAGT ACGTACGTTC GACAACGTTC TAAAGTAATT CCTAAAATT	240
TGGAACATAT ATTAAATCA AGTTTTTTAT TAGAGAATAT AGATGTTTCT GGTACACTG	300
TAAATATTTT AGAAGATCAA TTAACAAAAC ATAGAACAAT CAAAATTAGT AAAAATAAC	360
TGGTGTATCT CATGTATAAA TACCTAACAA AACCACGCGC CTTGCCTGCT GATGGAAAGA	420
AAGGTACAAA TACATGAATA TCAAGAAAA AATCAAAAAG AATGGCCAAA GAGTTTATTA	480
TGCTAGTGTT TATCTAGGCG TTGACCAACT AACGGGCAAA AAAGCCCGTA CAACTGTTAC	540
AGCAACCACT AAAAAGGGCG TTAAAGTAAA AGCGCGTGAT GCGATCAATA CTTTGTCTGC	600
TAATGGCTAT ACAGTTAAAG ACAAGCCGAC AATTACAACA TATAATGAGC TTGTAAAAGT	660
TTGGTGGGAT AGTTACAAGA ATACAGTTAA GCCAAATACT CGCCAATCCA TGGAGGGATT	720
GGTTAGAGTG CATTTATTGC CTGTATTTGG CGATTACAAG CTATCTAAAC TTACTACGCC	780
TATTCTTCAA CAGCAAGTAA ACAATGGGC TGACAAGGCA AATAAAGGCG AAAAAGGGGC	840
ATTTGCTAAC TACTCTTTGC TCCATAACAT GAATAAGCGT ATTTTGAAAT ATGGCGTAGC	900
TATCCAGGTA ATACAATACA ACCCAGCTAA TGATGTCATC GTTCCACGCA AACAGCAAAA	960
AGAAAGGCT GCTGTCAAAT ACTTAGACAA CAAAGAATTA AAACAGTTTC TTGATTATTT	1020
AGATGCTCTG GATCAATCAA ATTATGAGAA CTTATTTGAT GTTGTCTGT ATAAGACTTT	1080
ATTGGCCACT GGTGCCGTA TTAGTGAGGC TCTGGCTCTT GAATGGTCTG ATATTGACCT	1140
AGAAAGCGGT GTTATCAGCA TCAATAAGAC ACTAAACCGC TATCAGGAAA TAAACTCACC	1200
TAAATCAAGC GCTGGTTATC GTGATATACC AATAGACAAA GCCACATTAC TTTTACTGAA	1260
ACAATACAAA AACCGTCAAC AAATTCAGTC TTGGAAATTA GGCCGATCTG AAACAGTTGT	1320
ATTCTCTGTA TTTACGGAGA AATATGCTTA TGCTTGTAAC TTACGCAAAAC GCCTAAATAA	1380
GCATTTTGAT GCTGCTGGAG TAACTAACGT ATCATTTTCAT GGTTTCCGCC ATACACATAC	1440
TACTATGATG CTCTATGCTC AGGTTAGCCC GAAAGATGTT CAGTATAGAT TAGGCCACTC	1500
TAATTTAATG ATCACTGAAA ATACTTACTG GCATACTAAC CAAGAGAATG CAAAAAAGC	1560
CGTCTCAAAAT TATGAAACAG CTATCAACAA TTTATAAAAA ATAAGGGTGA CCCATTTCGG	1620
GGCTACCCCTC TTACTATACC AAAAATTAGT AGGGGTAGTA AAAAGGGTAT TAAATTATAA	1680
AAAGCACTAA GGGAAAGCGC CCCAAAGTGC TTATTTCAAA GGCTTTATAG CCTATAATCA	1740
CATAAAGAGA TTATTTTTTA AGGTTGTAGA ATGATTTCAA TCCACGATAT TCAGCTACTT	1800
CACCAAGTTG GTCTTCGATA CGAAGCAATT GGTGTATTT AGCGATGCGG TCTGTACGTG	1860

418

AAAGTGAACC AGTCTTGATT TGTCTCGCGT TAGTTGCAAC TGCAATATCA GCGATTGTTG	1920
AATCTTCAGT TTCACCTGAA CGGTGTGATA CAACAGCAGT GTAACCAGCT TCTTTAGCCA	1980
TTTCGATAGC TTCAAAAGTT TCAGTAAGAG TACCGATTTG GTTAACTTTG ATAAGGATTG	2040
AGTTAGCAGC ACCTTCTTGG ATACCACGTG CAAGGTAGTC AGTGTGTTGTT ACGAAGAAGT	2100
CGTCACCAAC AAGTTGTA CTCTTACCAA GACGTCAGT AAGAGCTTTC CAACCATCCC	2160
AGTCGTTTTT ATCCATACCA TCTTCAATAG TGATGATTGG GTATTTGTTA ACCAATTCTT	2220
CAAGGTAGTC GATTTGTCTT GCAGATGTAC GAACAGCAGC ACCTTCACCT TCAAATTTAG	2280
TGTAGTCGTA AACTTTACGT TCTTTATCGT AGAATTCTGA TGAAGCACAG TCAAATCCGA	2340
TAAATACGTC TTTACCTGGT ACATATCCAG CAGCTTCAAT CGCAGCAAGG ATAGTTTCAA	2400
CACCATCTTC AGTTCCTTCG AAACGAGGAG CGAATCCACC TTCGTCACCT ACGGCAGTTT	2460
CCAAACCACG TGATTTAAGG ATTTTCTTAA GAGCGTGGAA GATTTACGCA CCGTAACGAA	2520
GGGCTTCTTT AAATGTTGGC GCACCAACTG GCAAGATCAT GAACTCTTGG AAAGCGATTG	2580
GAGCGTCAGA GTGAGAACCA CCGTTGATGA TGTTTCATCAT TGGAGTTGGA AGAACTTTAG	2640
TGTTGAATCC ACCAAGATAG CTGTAAAGTG GGATTTCAAG GTAGTCAGCA GCAGCACGAG	2700
CTACAGCGAT AGACACACCG AGGATTGCAT TCGCACCCAA TTTACCTTTG TTAGGAGTAC	2760
CGTCAAGTGC GATCATAGCA CGGTCAATAG CTTGTTGATC ACGTACATCG TAGCCAATGA	2820
TAGCTTCAGC AATGATGTTG TTTACGTTGT CAACAGCTTT TTGTGTACCA AGACCACCGT	2880
AACGAGATTT GTCACCGTCG CGAAGTTCAA CTGCTTCGTG TTCACCAGTA GAAGCTCCTG	2940
ATGGAACCAT ACCACGTCCG AAAGCACCTG ATTCAGTGTA AACTTCTACT TCAAGTGTTG	3000
GGTTACCGCG TGAGTCTAGG ACTTCGCGAG CGTAAACATC AGTAATAATT GACATTTT	3060
ACTCTCCTTA TGAGTTAAAT TTTTACACC TCTATAATAC CTTAAAACCC CTCCTTTTTC	3120
AAGAAAAAAC GTTATCTTTG TGCAACTTTT CCTTAACTTT ATAAAGTAAT CGCTTCTTT	3180
TGCTGTGTTT ATTCTAACTT TTATGATATA CTGTTTCAT GACAGATTTA TCAAAACAAT	3240
TACTTGAAAA AGCTCATGGT GGGTTAAAA TAAATCCGGA TGAGCAAAGA CGCTATCTTG	3300
GTACTTTTGA GGAAAGAGTT CTGGATATG TAGATATGA CACAGCAAAT AGCCCTCAGT	3360
TAGAAAAAGG CTTTTTATTT ATTTTAGAAA ACCTTCAGGA AAAAGCAGAG CCACTATTTG	3420
TGAAGATTTT ACCAACTATC GAATTTGATA AGCAAGTTTT CTACTTAAAA GAAGCAAAAG	3480
AAACTGATAG TCAAGCCACC ATAGTATCTG AAGAGCATAT TACTTCTCCT TTTGGCCTGG	3540
TTATTCATAG CAATGCACCA GTTCAAGTAG AAGAAAAAGA CCTTCGACTT GCTTTTCCAA	3600
AACTTTGGGA AGPTAAAAAG GAAGAACCAG CCAAAACATC CTTATGGAAG AAATGGTTTA	3660

GCTAAATCTT GCACATATTT AATAAGTGCC CAATATTGGC AGCCGTGCGC TCCAGATAGA	3720
AACTGGCATT TTTCAAACCTA TCTTCTAAAG GTTCACTTTT CTCCAAAATA GAAAAGACAG	3780
CTTGGATATT TTCAAATGGT AGGGGAGGTA AATCTTCAGC AAGACTACCG CAAATAGCAA	3840
TAACAGGAAC TCCAACAGGG GTTCTTTTGT CAACACCTAT AGGCGCTTTC CCAGCAAAGC	3900
TTTGACTATC AAGTCTTCCT TCTCCAACAA CAACCAAGTC AGCATCTGAA ACTTCTTAT	3960
CAAAGTTGAT TAAGTCCAAG CAGGTATCAA TTCCAGACAC GATACTTGCC TGAGCAAAGG	4020
CACACAAACC ACCAGCAAGG CCTCCACCTG CTCCTGCTCC TTAAATTTCT AATGTTGCAG	4080
GTGAGAATTT TTCATAAAAA TCTTGATCG CCTGATCTAC GACTGCAAAC ATAGTCGGAT	4140
GTAGACCTTT TTGATTGCCA AAAGTGTAAG TCGCACCTTG ATGACCACAT AAGGGACTCA	4200
CGACATCTGC TAAAATATGA ATTTGAACAC CTTCAGGAAT TTTATAGCAA TTTTCTGTTG	4260
AAACAGAAGC TAAGTTTAAT AAGGATTGAC CGGAAGCAGG CAAGACATTT CCATCCCTAT	4320
CATAAAATTG ATAACCTAAA CCAGCAGCAA TCCCCAGTCC TCCATCATTA CTGGCCGTGC	4380
CACCAACACC GATATAAATA TCTTTAATCC CTTTAGAGAT GAGATGAAGA ATCAACTCTC	4440
CAATACCACA AGTTTGGATT TGAAGTGGAT TTCGTTTCTC TAGCGGAATT TTTCCAAGAC	4500
CAACCAAGTC AGCTACTTCA AATAGTGCCA GTTCCCCTTT TTGAAAATAG CGCATGGCTT	4560
CTTTTGTCTC AAAAGGGTCT GTCACTTGA TCCATTTTTC TTTTAGGTCA AGAGAATGTC	4620
GGATAGCATC TACAGTACCT TCTCCCCCAT CACCAACAGG GCAGAGGAGA CATTCTACAT	4680
CTGCTATCGA TTGTTGGAAG CCTCTTTTTA TTGCTTCAGC TACCTGTTGA GCTGTCAAGC	4740
TTTCCTTAAA CGAATCCGGT GCAATTACAA TCTTCATATT TTCCCTCATT CTAAACAGTC	4800
AATCAAAGGG AGAAGTTCTA AAAAATCCCT CTTGTCAACA TGATGTGGTA TTTCTTTTTT	4860
GAGCACTTCT TTGGCACAAA AGGCGATTCC TAACCTCGCC GACTTCAACA TTAATAGATT	4920
ATTAACCCCA TCACCGATTG CCACCGTTCT TTCTTTAGAA AGTTTGTAGT TCTTCTCCA	4980
TTTTTCCAGA GTCTCTTTTT TGACCTGGGG ACTTATAATT TGTCCAACCTA ATTTCTCTGT	5040
TAAAAGACCT TCTTTGACTT CAAGCTAGTT GGCAGTGAAA TAGGCAATAC CAAGGGATT	5100
TGCTAATCTC TCCAACATTT GGTGTAAATC CACCAGACAC CAGACCAACT AGGATGCCAT	5160
TCTTTTGAG AATAGAGATG AACTCTGGGA CATTAGCGA TAGATGAATT GAGTTGAAGA	5220
CGTTATCAAA GACCAAAAATA GGAAGACCTT CCAACAAGGA CACTCTTTTT CTAAACTGC	5280
TTTCAAAGAC CAACTCTCCT CGCATGTCTC GACTTGTAAT CTGCGAAATT TCCGCCTCAT	5340
GACCTGCCTC TCTCCCTAAA AGATCAATCA CTTCTTCTAG GATTAAAGTT CCATCTACAT	5400

420

CCAAAACACA CAAGCCTTTT ACTTGAGACA TCAGTTCTCC TCTCTAAACA GCCTAAAAAT	5460
CGTATGAAGT CATCATACGA TTTTATCTAT TAATTAAC TAATTAAC TAATTAAC TAATTAAC	5520
TATGACTTGC AGGCTGTATC CCATGAGAAG TCACTCTCCA TAGCTTGTTT TTGTAGGTTT	5580
CTCCAAATGT CTGGATGGTT TCTATACAAG TCCAATGCTG TTGGGAAAGT CCAATTAAAC	5640
CAATAAGGAG ATAGATTGTC AAAGCTAAAG CCAGTACCGC TTCCTTCGAT TGGATTGAAA	5700
GCGCGAACTG TATCTCGCAA GCCTCCAAC TCACTGGACCA ATGGCAAGGT TCCATAACGC	5760
ATAGCCATCA TTTGAGACAA GCCACACGGT TCAAAACGAC TTGGCATGAG GAAGAGGTCA	5820
CAAGCAGCGT AGATTTCCTG AGCAAGTTTG ACATCAAAAG TGATATTTGT TGATAGCTTG	5880
TCTGGGTAAA TCTGAGCAAA CCATGAGAAA GCTCCTTCAA AGGCTGGATC GCCAGTTCCC	5940
AAAAGAACAA TCTGAACATC TTCTTGCAAG ATATGGTGAA GACTTTCGAC CACCACATCA	6000
AAACCTTTTT GACGTGTCAA ACGAGAAACA ATTCCCACCA GTGGAACGTC TGCTCTAACA	6060
GGCAAGCCAA CTCCTTCTTG CAATTTTGCC TTATTTTGG CTTTCCAGA CAAATCTTCC	6120
TGATTGAAAT GATAGTCTAA AAGAGCATCC GTCTGAGGAT TATAAAGATC AGCATCAATC	6180
CCATTCACGA TACCAGATAC TTTACCAGAC TCCATTTTAA GAATCTGATC CAAATTACAT	6240
CCAAACTGAC TAGTCATAAT TTCATGAGCA TAGCTAGGTG AAACGGTTGA AACACGGTTC	6300
GCATAGAGAA TACCTGCCTT CATCCAGTTC AGACAGTTGT TCCATCGAAG GGTGCCATCA	6360
GCGTAACGTT CAAAGCCAAC TCCAAACAAA TCACCCAACA TTCCTTCTGA AAATGTCTCT	6420
TGGAATTCTA AATTATGAAT GGTTAAACT GTTTCATGT CCTCATAGGC TTGAATCCAA	6480
CGGTATTTT CTTCAACAA GAAAGGAATC ATAGCTGTAT GGTAGTCATG AACATGGAGA	6540
AGATCAGGAA TAAAGTCAAT CCTTCCATA GCCTCAATGG CAGCCAGTTG GAAAAAGGCA	6600
AAGCGTTCTC CGTCATCAA ATCACCCTAA ACATGACCAC GGAAGAAATA ATATTGATTG	6660
TCAATAAAGT AGAAGGTTAC ACCATTTAAT ACTGTTTTCT TAATTCCACA ATACTGTCTG	6720
CGCCAACCAA CGCTCACCTC AAAATGAAGC ACATCTTCAA TCTGATTTCC AAATTTAGCC	6780
TCTACCATAT CATAGTAGGG TAAATCACT GCAACTTCGT GCCCAGCTTT TACCAGTGAT	6840
TTTGGAAGAG CGCCAATGAC GTCTCCCAA CCACCTGTTT TTGAAAAGGG TGCACCTCT	6900
GCTGCTACAA ATAAATTTT CATGAATGAA TATCCTCTGT TACTTTAGCA CCTTTCTTAA	6960
CCACAACCTG ATGTTCTGCA GTTCCTCGAA TCACAACACC ATGCTCAACT TCAACCCCTT	7020
TGTCCAAGAT AGCATATTCG ACCTGAGCCC CTTCTCCAAT AACAAACGCA GGAAGAGCA	7080
GGCTATCTTT AACCAAGCTA TCCTTATGGA CATGAATATT ACGTGATAGA ACAGAATTAG	7140
CTACTTGACC TTCAATAATA CTACCAGAGG CAAACTGAGA AGTGCTTACC TTAGATGTAT	7200

421

TAGCATAGTA AGTTGGCTCT TCGTTTTTGA CCTTTGTATA AATCTTTTGG TTTGGTGAGA	7260
AAAGAGAATA GAATTTTGT GATTCAAGCA TATCGATATT CGCTTGATAA TAAGATTAA	7320
CAGAGTGAAT ATTGGCTAGA TAGCCCGTGT ACTCGTAGGC GAAAGCTCCC TCTTTTACAG	7380
CCAAATCCCG TAAACATAG CGCAATTTCT CTGGATGTTC TTTTTTAGCT TCTTCTTCCA	7440
AGTGTTCAT CAACCAAGGT GTATCAACGA CAAAGATATC TGTAACATA TTGAACGTT	7500
CAGCTGTTGA CTTGCTATCA AAGAGTTTAT GAGAAAGAAC ATGGTCTGTT TCATCTACAT	7560
CCAAGATTGC ATTTACTTCT GAAATATCTT TCTTAGCTAG TTTTTTATAA ACTACAGTGA	7620
TAGGCTCTTT TGTGTACTA TGTAGGTGGA AAACCTGGTT CAAATCAATG TTAATAAGAA	7680
CATCGCAGTT GAGGGCAACC GTTGGGTTG AGCCAGAACG TTTCAAATAA GTAAGAAGCT	7740
GTTGGTAGTA TTCTTTTCCA ACTGTACTAC TTTCTACACG GGTATTGTAA ATTCCTAGAT	7800
AGTAATGGCT AAGAAGGTT GATAAGCCCC ACTCGCGTCC TGAACGAATA TGGTCAAATA	7860
CTGAGCTGAT ATTATCTGCT TGGAAATAC CAAAGACACT ACGAACACCT GCATTAGCAA	7920
GGCTTGAAAG TGGGAAGTCA ATCAAACGAT ATTTCCACC AAATGGCAAA CTTGCTACTG	7980
GACGGTGGTC CGTCAATGTC GACATATTGT GAAAACCAAC TGTATTTCTT AAAATGGCAG	8040
AATATTTATC AATCTTCATC TGTGCTACC CCCACTACTT CATTATATCC TACAACTTGT	8100
ACTTCATCTG TTCCATCAAT TTCGACACCG TCAGAAATAA TCGCACCTTC ACCAATAATG	8160
GCACGTTTAA TCTTAGCTCC TTGACCAATG ATAGCTCCAC TCATGATAAC TGAATCAAGG	8220
ACTTCCGCTC CTTGCGGAAC TTGCGCGCCT GTTGAAAGGA TAGAATGTTT AACAGTTCCA	8280
TCAACGAAAC ATCCGCTCTAC AACTAATGAG TCTTCCACAT GAGCATTTGC CCCGAGGAAG	8340
TTTGGTGGTG AAATCAAGTT TCTTGAGTAA ATCTTCCATT GACGGTTACG ACTATCCAAG	8400
GCATTTTCTG GAGAAATATA CTCCATGPTC GCTTCCCAA GTGACTCAAT AGTACCAACA	8460
TCTTTCCAAT AACCACTAAA TTCGTAAGCA TAAACACTTT CACCTGACTC AAGGTAATTT	8520
GGAATGACAT TTTTACCAA GTCTGACATG CCAACCTTGC TCTTTTCAGC AGCGACTAAC	8580
ATATTACGAA GCGGTTGCCA ATCAAAAATG TAGATTCCCA TAGAAGCTTT TGTAAGTTTA	8640
GGTTGAGCTG GTTTTCTTTC AAATTCAACA ATACGATTGT TAGCATCTGT GTTCATGATA	8700
CCAAAACGGC TTGCTTCTTT AAGAGGGACG TCTAAACTG CTACTGTCAA GCTGGCATT	8760
TTATCCTTAT GAGACTGGAG CATATCATCA TAGTCCATTT TGTAAGTGTG ATCCCCAGAC	8820
AAAATCAAGA CATACTCAGG ATTGACACTG TCGATATAGT CGATATTTTG GTAAATAGCG	8880
TGACTAGTCC CCTCAAACCA ACGATTTCCT TCACTTGCAG AATAAGGTTG AAGAATAGAG	8940

422

ACACCTGAAT TAATACCGTC TAGTCCCCAG CTTGAACCAT TCCCAATATG GTTGTGAGA	9000
GCAAGTGGTT GATACTGTGT AACGACCCCA ACATTGTGAA TCCCTGAGTT GGCACAGTTT	9060
GATAGGGCAA AGTCAATGAT ACGGTAGCGC CCACCAAATT GCACAGCTGG TTTTGCGATG	9120
CTTTGAGTGA GTTTACCGAG ACGAGTTCCT TGCCCAACCAG CAAGAATCAA AGCTAACATT	9180
TCATTTTCA TTTTCTACTC CTTTGTGGTT TTTATTTGTG ACGGTTTTAG TAGATTTCAA	9240
GCGACGTTTG ATTTTCCATA CACTTGCTCC CATAGCCGGT AGGGTAAAGG TTAAGGTCTG	9300
CTCATAATCT TTCCATAGTC CTTCTTGCGT TTGAACAGTT TGATTATGTT CTTTCCAAAC	9360
GCCTCCCCAC TCTTCCAACT CAGTATTCCA TACTTCTTCG TAAATTCCTG CAACGGGTAG	9420
TCCGATTGTA AAATCTTTCC GCTCAACAGG TACCATATTA AAGATACAGA CTAACATTTT	9480
TCCCTTTTTA CCGTTACGAA TAAAGGAAAG AACACTCTGG TCTCGATTAT CCGCATCAAT	9540
GATTTCAAATA CCATCATAGC TGGTATCAAT TTCCCACAGA CAGCGATGAT CTTTGTAATA	9600
CTGTTTTAGC TGAGAAGCGA AATACTTCAT CTTAGCATTC ATTGGGTCTT CTAGGTTAGA	9660
CCATTCACAC TGTTCTTCAG ATTTCCATTC TAGGAATGA CCGTATTGCG TACCCATGAA	9720
GAGCAATTTT TTACCAGGGT GACAAATTTG GTACGTATAG AGATTGCGCA AGCCTGCGAA	9780
TTGATTGTAA CGATCTCCCC ACATCTTATG CATCATACTC TTCTTGCCAT GAACCACTTC	9840
ATCGTGCGAG AATGGCAAGA GATAATTCTC CTTGAAAACA TACATAAAGC TGAAAGTCAC	9900
CAGGTTAAAG TCATATTTAC GATAGATCGG ATCTTCTTCG TAGAAACGGA GGATATCATT	9960
CATCCAGCCC ATGTTCCATT TGTTAGTCAA TCCTAGACCA CCAATCTCTT TCATTCCCGT	10020
AATCTTGATC GCAGACGAAC TTTCTTCTGC AATCATCATC ACATCTGGAT ATTCTAACTT	10080
AATAACCTCA TTCAAGCGCT GAAGGAAATA ATAACCTTCA TAGTTGAGAT TTCCGCCATC	10140
TTTATTAGGT GTCCATGGAG CATCATCATA GTCCAAATAG AGCATGTTGC TAACAGCATC	10200
CACACGAATA CCATCCAAAT GATAGACATC AATCCAATGC TTAATGCAAG AAATTAAGAA	10260
GGACTGGACT TCATTTTTTC CAAGGTCAA ATTAAGGGCA CCCCAACCAT GGTATGAGC	10320
CTTATTATGG TCTTGGTATT CAAAAGTCGG TGTCCCATCA TAATAGGCTA AGGCATCATC	10380
GTGATGGTA AAGTGACTGG TACCCAGTCC ACAATAACCC CAATATTATG GGTATGACAC	10440
TCCTCGACAA AATCTTGAAA CTCTCTGGT CGGCCATAAG CATGCTCTAA AGCGAAGTAA	10500
CCCATAAGCT GATACCCCA ACTCAAGCCC AAAGGATGGG ACATCAAGGG CATAAACTCA	10560
ATATGAGTAT AGTTCATTTT AACGAGATAA GGAATGAGTT CATCCTTGAG CTGGGCAAAA	10620
CTATAAGGAC TGCCATCAGA ATTTCTTTTC CATGATCCAG CGTGAAC TTC ATAAATATTG	10680
ACAGGACGCT CTTCAAAGCC CCAACGTTTT CTTCTGTCGA GCCAAAGTCC ATCCTTCCAT	10740

423

TTCTTCTCAG GAAGCTCTGT TACGATTGCC CCTGTTCTCTG GACGAGCCTC ATACCTGACA	10800
GCAAAAAGGGT CAATCTTCAT CAGTTGATGA CCATTTTGAC GTGTGACATG ATATTTGTAA	10860
ATATGCCCTT CTTGAGCCAT ATTGGTAAAG ACTTCCCAGA CCCC AAAATC ATTTCTTACC	10920
ATTGGAATCT GATTTTCAAT CCAGTTGGTA AAATCACCAA CCAAGTGAAC AGCCTGAGCA	10980
TTAGGTGCCC AAACACGGAA GGTATAGCCA TGCTCTCCAT TTAGTTCTTC CCTATGTGCT	11040
CCTAGATAAT GTTGAGATA AAAATTTTCA CCCGTCATAA AGGTTTTTAA TGCTTCTCTA	11100
TTATCCATAT ACTCCCTTC TCCTGTAAGC GTTTTCTATG TTTTATTAT ACTACCTTTT	11160
TAGAGAAGAT TCAAGTAAAT TACTATACTT CTTTAATTAT TTTGAAAATC TACAACAAGT	11220
TCACTTACTC GTTCAATTGT AAATCAATAT TTTTCAAAA AATTGCGAAA ACGCCTTTCT	11280
TTTTCTACTA TAGTGAAATG AAATAAACA TGCGCAAATC GATTAAGGAA TTTAATCTAA	11340
TTTCTAACAA TGTCTTAGAA ATCAAAGTGT ACTATTTTAA CTCC	11384

(2) INFORMATION FOR SEQ ID NO: 46:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7577 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 46:

TGTTGATTG TTAGTAGACG TTGACCAACG TCCTTCGGCT GGAAAAGGAA TTCTCCTTAG	60
TTTCCAACAC GTTTTCGCCA TGTTTGGTGC GACCATCTTG GTACCATTGA TTTTGGGAAT	120
GCCTGTATCT GTTGCCCTTT TTGCTTCAGG TGTGGAACA CTCATCTACA TGATTGCTAC	180
TGTTTAAAT GTTCCAGTTT ATCTAGGTTT TTTATTTGCC TTTATCACAG CTATGTCACT	240
GGCTATGAAA GAAATGGGGG GGGATGTATC TGCTGCCCAA ACAGGGGTTA TCTTGACTGG	300
TTTGGTCTAT GTCCTTGTG CTACCAGCAT CCGATTTGTA GGAACAAAAT GGATTGATAA	360
ACTCTTGCCA CCAATCATT TCGGTCTAT GATCATCGTT ATCGGTCTTG GACTTGCAGG	420
TTCAGCTGTT ACCAATGCAG GTCTTGTAGC AGACGGAAT TGGAAAAATG CTCTGGTAGC	480
CGTTGTACT TTCCTAATTG CTGCCCTTAT CAATACAAA GGAAGGCT TCCTACGAAT	540
CATTCCATTC CTCTTTGCCA TTATCGGTGG TTACCTTPTC GACTAACTC TTGGCTTGGT	600
TGACTTTACA CCAGTTCTTA AAGCCAACTG GTTCGAAATT CCTGGTTTCT ACTTGCCATT	660
TAGCACAGGT GGTGCCTTTA AAGAGTACAA TCTTTACTTT GGTCCAGAAG CCATCGCTAT	720

424

CTTGCCAATC GCTATCGTAA CAATTTCTGA ACATATCGGA GACCATACTG TTTTGGGTCA	780
AATCTGTGGT CGTCAATTCT TAAAGAACC AGGTCTTCAC CGTACTCTTC TTGGTGACGG	840
TATCGCAACT TCTGTTCTG CCTTCCTTGG TGGACCAGCC AATACAACCTT ACGGAGAAAA	900
TACAGGGGTT ATCGGTATGA CTCGTATCGC TTCTGTCTCA GTTATCCGTA ACGCTGCCTT	960
CATCGCGATT GCCCTCAGCT TCCTTGGTAA ATTCACTGCC TTGATTTCAA CTATTCCAAA	1020
CGCTGTACTT GGTGGTATGT CAATCCTTCT CTATGGGGTT ATCGCCAGCA ATGGTTTGAA	1080
AGTCTTGATT AAAGAACGTG TTGATTTTCG TCAAATGCGA AACCTCATCA TCGCAAGTGC	1140
TATGTTGGTT CTTGGACTTG GAGGAGCTAT CCTTAAACTT GGTCCAGTTA CACTTTCAGG	1200
TACTGCCCTT TCAGCCATGA CAGGAATCAT CTTGAACCTG ATCTTGCCAT ACGAAAATAA	1260
AGACTAAGAG TCTAAATACA CCTAATCCAC TCAGACAGCT GAGTGGATT TTCGTATACC	1320
ATAATAAAG TGTCTTAACA AAATTATTAA AATCAAAAAA CGTATAATAT CAGATATTCT	1380
AAAACCTTGA TACTGTACGT TTTATCATAG AAATTTTAC TTTATTTCT CATCAAATGA	1440
GATTTCATC AATCTCTGT CTTACTTGC TTTCTTCTTC GCTTCTTCA TTTTGTAGC	1500
CATACGTTTC ATGGACTGTT TCATGGCAA TTCACCAATT TTACCTTTCA AACC GCCACC	1560
AAACATCTGG CTCATATCTG GCATTCCTGC TCCTCCGAGA GCTGATAAGT CAGGCATACC	1620
GCCTTGTCCC ATCATTCTCT CAAGGGCAGA CATATCCATT CCTCCCATAT TTGGCATATT	1680
TTTAGGAAGG TTATTTGGAT TAATCCCCAT TTGCTTCATC ATTTTATTCA TATCCCCAGA	1740
CATAACACCC TGCATGAGCT GTTTAGCCTG GTTAAAGTCC TTGATGAATT TATTGACTTC	1800
GACGAATGTA TTTCCAGAAC CAGCAGCAAT ACGACGGCGA CGGCTTGGAT TTAACAAATC	1860
TGGGTTTTCG CGCTCTTCAG GTGTCATCGA AGACACAATG GCACGTTTAC GAGCAATCTG	1920
GCGTTCATCC ACCTTCATGT TTTGAAGGGC TGGATTGTTG GCCATACCTG GAATCATCTT	1980
GAGCAAGTCT TCCATCGGCC CCATATTTTG CACCTGATCT AATTGATCGA TGAAATCATT	2040
AAAATCAAAG GTGTTTTTCG GCATCTTCTC AGCCATTTC AAGGGCTTTT GTTCATCGTA	2100
TTCTGAGAA GCTTCTCAA TCAAAGTGAG CATATCCCC ATACCAAGGA TACGGCTAGA	2160
CATGCGGTCT GGGTGAAGG TTTCAATGTC CGTAATCTTT TCACCTGTAC CAGTGAACCTT	2220
GATTGGTTTT CCAGTAATGT GACGAACAGA CAGAGCAGCA CCACCACGAG TATCGCCATC	2280
AATCTTGATA AGGATGACCC CAGTCACTTC CAACTGAGCA TTAAACTCAC GCGCAACATT	2340
GGCTGCTTCC TGACCAATCA TAGCATCAAC GACAAGCAAG ATTTCATTTG GTTGAGCCAA	2400
TGCTTTCACA TCACGAAGCT CATTCATGAG GAGCTCATCA ATCTGCAAAC GACCCGAGT	2460
ATCAATCAAG ACATAGTCGT TATGATTAGT TTGGGCTTGC TCCAAACCTT GACGTACAAT	2520

425

CTCAACAGCT GGTACTTCTG TTCCAAGTGC AAAGACAGGC ACATCAATCT GTTGTCCCAA	2580
GGTCTTAAGC TGGTCAATGG CAGCTGGACG ATAAATATCC GCCGCAATCA TCAAAGGACG	2640
AGCATTTTCT TCTTCTTGA GTTTGTTGGC CAATTTACCA GCAAAGGTTG TTTTACCAGC	2700
CCCTTGTAAG CCAACCATCA TGATGATGGT TGGAACTCTA GGTGACTTGA TAATTTCTGC	2760
CGTATCAGAA CCTAAAACGG CTGTCAATTC CTCATCAACG ATTTTAATAA TCTGTTGCGC	2820
AGGATTAAGT GTATCAATGA CCTCATGCCC GACTGCACGC TCACGAACTT TCTTGATAAA	2880
GTCCCTTTACA ACAGGCAAGG CAACGTCGGC CTCGAGCAAG GCCAAGCGAA TTTCTTTGGT	2940
TGCCTCTTGG ACATCAGATT CAGAGATTTT TCCTTTTTTA CGTAGATTTT TAAAGACGTT	3000
CTGCAAAAGT TCTGTTAAAC TTTCAAATGC CATTTTCTCT CCTCTTATTC TCTATTATCA	3060
ATGCTTGTTA AAATTTCTAT CTGCTCCTGC AGAAAGTCAT CCTTGGGATA GCGCTCCAAA	3120
ATCTGATCAA AAATCTGACT GCGGACAATA TAGTCCGAGT ACATGTGCAA TTTCATCTCA	3180
TAATCTTCCA GAATCTTTTC TGTTGCTTGG ATATGTGTCAT AGACAGCCTG ACGACTGACA	3240
CCGAAGCTCT CGGCAATTC AGCAAGGCTG TAATCATCAG CGTAGTAGAG CTCGATATAA	3300
TTTCTTTGCT TATCTGTCAA AAGCGCCGCA TAAAATTCAA AGAGCGCATT CATACGATTG	3360
GTTTTTTCGA TTTCATAAC TTTTATTATA CCAAAAATTA GCCTAATCTA CCACACTAGG	3420
AAGCCGATCC AAGAAGATAG ATAGCTAAAT TTGAAAAAGA CATGAGCCTA GCCCAAGTA	3480
ATTTCCAATT GATAGCTGGC AAAGGGATGT CCCTCTTGAT TTTGTAGTTG ATAATCTAGT	3540
TCAATCTTTT GCCTATCAAC TTGATAATGG CTCGTTTGGG TGATAAACTC CTGCATGCC	3600
ATAGGTGTAG GAATATAGGC TAACTATCG CTATCCTTTA GAAAGCGCAT AATGGTCTTG	3660
GGATTAGAAA ATCGGCTCAT CACAAGTTCT TGACCATGAA ATTTAATCAC TACTTTTCC	3720
TTTTCTCAT TATAGAAAAG CAGGTAGCTA TAATCTCCTT TTTTCATGCAC TTCCACATCA	3780
TAAAGCTGGT CAATCACTTC CAACTGCTCA TCAAACTGAA TCGTATTTTCG CATCCGAATC	3840
TTACATCAG GCCCTCTTC TTGTCTCTTG TCCTACTATT TTACCAAAAA GAGCAGGATT	3900
TTGCTATAAT GGTCAATGA ACGAAAAAGT ATTCCGTGAC CCTGTTTACA ACTACATCCA	3960
TGTCAATAAT CAAATCATCT ATGACTTGAT TAATACAAAA GAATTTGAGC GTTTGCGCCG	4020
GATCAAACAA CTGGGAACTT CCAGTTATAC CTTCCACGGT GGAGAACACA GTCGCTTCTC	4080
TCACTGTCTA GGAGTCTATG AAATGTCACG ACGCATCACA GAGATTTTCG AAGAAAAATA	4140
TCCTGAGGAA TGAATCCTG CCGAGTCTCT CTTGACCATG ACCGCTGCTC TCCTACACGA	4200
CCTTGGGCAT GGTGCCTACT CCCATACTTT TGAACATCTC TTTGATACAG ACCATGAAGC	4260

426

CATTACTCAG GAGATTATTC AAAATCCTGA GACAGAGATT CACCAAGTCC TGCTACAAGT	4320
GGCACCTGAT TTCCCAGAAA AGGTGGCCAG TGTCATTGAC CATACCTATC CTAATAAGCA	4380
GGTCGTGCAG CTCATTTCCTA GTCAGATTGA CGCAGATCGC ATGGACTATC TCTTGCGCGA	4440
CTCCTATTTT ACAGGAGCAT CCTATGGGA ATTTGACCTG ACTCGAATCC TCCGAGTCAT	4500
TCGTCTATC GAAAATGGTA TCGCCTTTCA GCGCAATGGC ATGCACGCCA TCGAAGACTA	4560
CGTCCTCAGT CGCTACCAGA TGTACATGCA GGTTTATTTT CACCCCGCAA CACGCGCCAT	4620
GGAAGTTCTC CTACAGAATC TTCTCAAACG CGCCAAGGAA CTCTATCCTG AGGACAAGGA	4680
TTTCTTTGCC CGAACTTCTC CACACCTCCT GCCTTTCTTC GAAAAAATG TGACCTTGAC	4740
TGACTATCTG GCTCTGGATG ATGGCGTGAT GAATACCTAC TTCCAGCTTT GGATGACCAG	4800
TCCTGACAAG ATTCTTGCAG ATTTATCGCA TCGCTTTGTC AACCGCAAGG TCTTTAAATC	4860
CATTACCTTT TCACAAGAGG ACCAAGATCA ACTTACTAGC ATGAGAAAAAT TGGTTGAGGA	4920
TATCGGCTTT GATCCCGACT ACTACACTGC CATTCTAAG AACTTTGACC TCCCTTATGA	4980
TATCTATCGT CCCGAATCTG AAAACCCAG GACACAGATT GAGATTTTAC AAAAAAATGG	5040
AGAAGTGGCC GAACCTCTA GCCTGTCTCC TATCGTCCAA TCCCTTGCTG GCAGTCGCCA	5100
CGGAGATAAT CGCTTTTATT TTCCAAAAGA AATGTTGGAC CAAAACAGCA TCTTTGCAAG	5160
CATTACCCAG CAATTTTAC ACTTGATTGA GAACGATCAT TTTACCCCA ATAAAACTA	5220
GAAGAGGAAA TTTATGAGTA TTAACCTAAT TGCCGTTGAT ATCGACGGAA CCCTTGTCAA	5280
CAGCCAAAAG GAAATCACTC CTGAAGTTT TTCTGCCATC CAAGATGCCA AAGAAGCTGG	5340
TGTCAAAGTC GTGATTGCAA CTGGCCGCC TATCGCAGGC GTTGCCAAAC TTCTAGACGA	5400
CTTGCACTG AGAGACGAGG GGGACTATGT GGTAACCTTC AACGGTGCCC TTGTCCAAGA	5460
AACTGCTACA GGACATGAGA TTATCAGCGA ATCCTTGACT TATGAGGATT ATCTAGATAT	5520
GGAAATCCTC AGTCGCAAGC TCGGTGTCCA CATGCATGCC ATTACCAAGG ACGGTATCTA	5580
TACTGCAAAAT CGCAATATCG GAAAAATAC TGTACACGAA TCAACCTCG TCAGCATGCC	5640
TATCTTCTAC CGTACCCCTG AAGAAATGGC TGGCAAAGAA ATTGTTAAAT GTATGTTTAT	5700
CGATGAACCA GAAATTCCTG ATGCTGCGAT TGAAAAAAT CCAGCAGAAT TTTACGAGCG	5760
CTACTCCATC AACAAATCTG CTCCTTTCTA CCTCGAACTC CTTAAAAAGA ATGTAGACAA	5820
GGGTTAGCC ATTACTCACT TGGCTGAAAA ACTCGGATTG ACCAAAGATG AAACCATGGC	5880
AATCGGTGAT GAAGAAAATG ACCGTGCCAT GCTGGAAGTC GTTGGAACC CCGTTGTCAT	5940
GGAAAATGGA AATCCAGAAA TCAAAAAAAT CGCCAAATAC ATCACCAGAA CAAATGACGA	6000
ATCCGGCGTT GCCCATGCCA TCCGAACATG GGTACTGTAA AAGTATCATT TTTCAATAAG	6060

427

AATTGATTAG CAATAAAATC CAATGAATTT TTTTAGCAAA CTATTTAATT TAAAACAAAA	6120
TAATCATAAT AGAGACACAA ATTCTGATTG TAACAATTTT TACCTAAACG AATTAGAATG	6180
TGGCCTTACT CCTGGGCAAC TCATACTCAT AGATTGGACT CAAAAAACAG GGAGAAATTA	6240
TAATTTCCCA AGATATTTTA AATACTCTCT TCAAATTGAC CCTGAATCTA CACACAATCA	6300
ATTATACAAA TTAGGATACT TCACTAAAAA TAAGACTTTA TCATATCTTA CAGTAGTAGA	6360
ATTAAAACT ATATTATCTA AACATAATTT AGCTACTTCT GGAAAAAAG CAGAATTAAT	6420
TACAAGAATA ATTAATAATG TTAACATTGA CAATTTAGAT ATTCCGTTTCG AATTTAACT	6480
AACAAAAGAA GCACAAAATC TTATTATCGA ACATAGTGAC TATATCAAAG CATACTATGA	6540
TAAAGACATA ACTATGGAAG ATTATTGTAA AGAAAAAAC AATATCTCTT TTAAGCAAC	6600
TTTTGGTGAT ATAAAAAGGA GTCTCTTAAA TAAACAAGCT CATAGGAATA CTGTATCAGG	6660
AGATTTTGGA TGCTTATCTA ACACACGAAA GGCTCAGGGA AGACATTTGG AACAGAAGG	6720
TAATATTAAA CATGCTTTAA TATATTACAT AGAATCTTTG ATAATTACTA TTTCAGGATT	6780
AGAAACAAT TTTTCAGCCA CTGATTATCC AGTATATTAT CCCGATTCTGA TACCTGACTA	6840
CTCACTAAAA CATATTCAAA CATTAAATGA ATCATTATCT GATGACGATT ATGATTTTGC	6900
TTTGTAGGAA GCATTATTC GCTTCTCAAT TTTGAATGCA AATCATTTTT TATCTAAGGA	6960
AGATATTGAC TATTTAAGAG TTAATTTACC TCGTTCCACT GCTGAAGAAA TAAACAATTA	7020
CTTAAAGAAA TATGAATGTT ATAGTCCTTT AAATAATTTA GAACTTGACG ATTTTGAATA	7080
AATTGACTAT ACAACATTT ATATACTCGA TATAGTCTCA ATTTTATCTG ATGATTGCCC	7140
AAATTTTCA ATAATAAAC GCATAATATT ATGGAGACAA TCCCCTATAT TATGCGTTCT	7200
TTTAATATCA AAGACTTTTT GACAACTTC TTTGATATCT AATTACATGC CCCCTGCAGG	7260
AATCGAACCT GCAACTACTC CTTAGGAGGG AGTTGTTATA TCCATTGAAC TAAGGGAGCT	7320
AGATAAAAC TCTGCTAAAT GAGCAGAGTT TTTTAGTCGA ATTAACGACG GATTTCTTTG	7380
ATACGAGCTG CTTTACCTTG AAGAGCACGC AAGTAGTACA ATTTGCGACG ACGTACTTTA	7440
CCGTAACGAA CAACTTCGAT TTTTCAACA CGTGGAGTGT GGATTGGGAA GATACGCTCA	7500
ACACCTACAC CGTTAGAGAT TTTACGAACT GTGTAGTTTT CTGAGATTCC AGCACCTTTA	7560
CGTGCGATAA CAACACG	7577

(2) INFORMATION FOR SEQ ID NO: 47:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4945 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

428

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 47:

CCTCGCTGAT GATTGGTGCT GTTTTATTG CTGGTCCAGC CTTGGCTGAA GAAACTGCAG	60
TTCTTGAAAA TAGCGGAnCT AATACAGAGC TTGTTTCAGG AGAGACTGAG CATTCGACCA	120
ATGAAGCTGA TAAGCAGAAT GAAGGGGAAC ATGCTAGAGA AAACAAGCTA GAAAAGGCAG	180
AAGGAGTAGC GATAGCATCT GAAACTGCTT CGCCAGCAAG CAATGAAGCT GCAACTACTG	240
AAACTGCAGA AGCAGCTAGC GCAGCTAAAC CAGAGGAAAA AGCAAGTGAG GTGGTTGCAG	300
AAACACCATC TGCAGAAGCA AAACCTAAGT CTGACAAGGA AACAGAAGCA AAGCCCGAAG	360
CAACTAACCA AGGGGATGAG TCTAAACCAG CAGCAGAAGC TAATAAGACT GAAAAGAAG	420
TCCAGCCAGA TGTCCCTAAA AATACAGAAA AAACATTAAA ACCAAAGGAA ATCAAATTTA	480
ATTCTTGGGA AGAATTGTTA AAATGGGAAC CAGGTGCTCG TGAAGATGAT GCTATTAAAC	540
GCGGATCTGT TGTCTCTCGT TCACGTCGGA CAGGTCATTT AGTCAATGAA AAAGCTAGCA	600
AGGAAGCAAA AGTTCAAGCC TTATCAAACA CCAATTCTAA AGCAAAAGAC CATGCTTCTG	660
TTGGTGGAGA AGAGTTCAAG GCCTATGCTT TTGACTATTG GCAATATCTA GATTCAATGG	720
TCTTCTGGGA AGGTCTCGTA CCAACTCCTG ACGTTATTGA TGCAGGTCAC CGTAACGGGG	780
TTCTGTGATA CGGTACACTC TTCTTCAACT GGTCTAATAG TATTGCAGAT CAAGAAAGAT	840
TTGCTGAAGC TTTGAAGCAA GACGCAGATG GTAGCTTCCC AATTGCCCGT AAATTGGTAG	900
ACATGGCCAA GTATTATGGC TATGATGGCT ATTTTCATCA CCAAGAAACA ACTGGAGATT	960
TGGTTAAACC TCTTGGAGAA AAGATGCGCC AGTTTATGCT CTATAGCAAG GAATATGCTG	1020
CTAAGGTAAA CCATCCAATC AAGTATTCTT GGTACGATGC CATGACCTAT AACTATGGAC	1080
GTTATCATCA AGATGGTTTG GGAGAATACA ACTACCAATT CATGCAACCA GAAGGAGATA	1140
AGGTTCGGC AGATAACTTC TTTGCTAACT TTAAGTGGGA TAAGGCTAAA AATGATTACA	1200
CTATTGCAAC TGCCAACTGG ATTGGTCGTA ATCCTTATGA TGTATTGCA GGTTTGGAAT	1260
TGCAACAGGG TGGTTCCTAC AAGACAAAGG TTAAGTGGAA TGACATTTTA GACGAAAATG	1320
GGAAATTGCG CCTTCTCTT GGTTTATTG CCCCAGATAC CATTACAAGT TTAGGAAAAA	1380
CTGGTGAAGA TTATCATAAA AATGAAGATA TCTTCTTTAC AGGTTATCAA GGAGACCCTA	1440
CTGGCCAAAA ACCAGGTGAC AAAGATTGGT ATGGTATTGC TAACCTAGTT GCGGACCGTA	1500
CGCCAGCGGT AGGTAATACT TTTACTACTT CTTTAAATAC AGGTCATGGT AAAAAATGGT	1560
TCGTAGATGG TAAGGTTTCT AAGGATTCTG AGTGAATTA TCGTTCAGTA TCAGGTGTTT	1620

429

TTCCAACATG GCGCTGGTGG CAGACTTCAA CAGGGGAAAA ACTTCGTGCA GAATATGATT	1680
TTACAGATGC CTATAATGGC GGAAATTCCTC TTAAATCTCT TGGTGATGTA GCCGGTAAGA	1740
CAGATCAGGA TGTGAGACTT TATTCTACTA AGTTAGAAGT AACTGAGAAG ACCAAACTTC	1800
GTGTTGCCCC CAAGGGAGGA AAAGGTTCTA AAGTTTATAT GGCATTCTCT ACAACTCCAG	1860
ACTACAAATT CGATGATGCA GATGCATGGA AAGAGCTAAC CCTTTCTGAC AACTGGACAA	1920
ATGAAGAATT TGATCTTAGC TCACTAGCGG GTAAAACCAT CTATGCAGTC AAATATTTT	1980
TCGAGCATGA AGGTGCTGTA AAAGATTATC AGTTTAACCT AGGACAATTA ACTATCTCGG	2040
ACAATCACCA AGAGCCACAA TCGCCGACAA GCTTTCTGT AGTGAAACAA TCTCTTAAAA	2100
ATGCCCAAGA AGCGGAAGCA GTTGTGCAAT TTAAAGGCAA CAAGGATGCA GATTTCTATG	2160
AAGTTTATGA AAAAGATGGA GACAGCTGGA AATTACTAAC TGGCTCATCT TCTACAACTA	2220
TTTATCTACC AAAAGTTAGC CGCTCAGCAA GTGCTCAGGG TACAACTCAA GAACTGAAGG	2280
TTGTAGCAGT CGGTAAAAAT GGAGTTCGTT CAGAAGCTGC AACCACAACC TTGTATTGGG	2340
GTATGACTGT AAAAGATACC AGCCTACCAA AACCCTAGC TGAAAAATATC GTTCCAGGTG	2400
CAACAGTTAT TGATAGTACT TTCCCTAAGA CTGAAGGTGG AGAAGGTATT GAAGGTATGT	2460
TGAACGGTAC CATTACTAGC TTGTGAGATA AATGGTCTTC AGCTCAGTTG AGTGGTAGTG	2520
TGGATATTCT TTTGACCAAG CCACGTACCG TTGTTAGATG GGTCTATGGT CATGCACGAG	2580
CTGGTGGTGA GTCTGTTAAC GATGGCTTGA TGAACACTAA AGACTTTGAC CTTTATTATA	2640
AAGATGCAGA TGGTGAGTGG AAGCTAGCTA AGGAAGTCCG TGGTAACAAA GCACACGTGA	2700
CAGATATCAC TCTTGATAAA CCAATCACTG CTCAAGACTG GCGCTTGAAT GTTGTCACTT	2760
CTGACAATGG AACTCCATGG AAGGCTATTC GTATCTATAA CTGGAAAATG TATGAAAAGC	2820
TTGATACTGA GAGTGTCAAT ATTCCGATGG CCAAGGCTGC AGCCCGTTCT CTAGGCAATA	2880
ACAAGGTACA AGTTGGCTTT GCAGATGTAC CGGCTGGAGC AACTATTACC GTTTATGATA	2940
ATCCAAATTC TCAAACTCCG CTCGCAACCT TGAAGAGCGA AGTTGGAGGA GACCTAGCAA	3000
GTGCACCATT GGATTTGACA AATCAATCTG GTCTTCTTTA TTATCGTACC CAGTTGCCAG	3060
GCAAGGAAAT TAGTAATGTC CTAGCAGTTT CCGTTCCAAA AGATGACAGA AGAATCAAGT	3120
CAGTCAGCCT AGAAACAGGA CCTAAGAAAA CAAGCTACGC CGAAGGGGAG GATTTGGACC	3180
TTAGAGGTGG TGTCTTCGA GTTCAGTATG AAGGAGGAAC TGAGGACGAA CTCATTGCGC	3240
TAATCACGC AGGTGTATCA GTATCAGGTT TTGATACGCA TCATAAGGGA GAACAGAATC	3300
TTACTCTCCA ATATTTGGGA CAACCGGTAA ATGCTAATTT GTCAGTGACT GTCAGTGGCC	3360

430

AAGACGAAGC AAGTCCGAAA ACTATTTTGG GAATTGAAGT AAGTCAGGAA CCGAAAAAAG	3420
ATTACCTAGT TGGTGATAGC TTAGACTTGT CTGAAGGACG CTTTGCAGTG GCTTATAGCA	3480
ATGACACCAT GGAAGAACAT TCCTTTACTG ATGAGGGAGT TGAAATTTCT GGTACGATG	3540
CTCAAAAGAC TGGTCGTCAA ACCTTGACGC TTCATTACCA AGGCCATGAA GTTAGCTTTG	3600
ATGTTTGGT ATCTCCAAA GCAGCATTGA ACGATGAGTA CCTCAAACAA AAATTAGCAG	3660
AAGTTGAAGC TGCTAAGAAC AAGGTGGTCT ATAACCTTGC TTCATCAGAA GTAAAAGAAG	3720
CCTTCTTGAA AGCAATTGAA GCGGCCGAAC AAGTGTGAA AGACCATGAA ACTAGCACCC	3780
AAGATCAAGT CAATGACCGA CTTAATAAAT TGACAGAAGC TCATAAAGCT CTGAATGGTC	3840
AAGAGAAATT TACGGAAGAA AAGACAGAGC TTGATCGCTT AACAGGTGAG GTTCAAGAAC	3900
TCTTGGCTGC CAAACCAAC CATCCTCAG GTTCTGCCCT AGCTCCGCTT CTTGAGAAAA	3960
ACAAGGCCTT GGTGAAAAA GTAGATTTGA GTCCAGAAGA GCTTACAACA GCGAAACAGA	4020
GTCTAAAAGA TCTGGTTGCT TTATTGAAAG AAGACAAGCC AGCAGTCTTT TCTGATAGTA	4080
AAACAGGTGT TGAAGTACAC TTCTCAAATA AAGAGAAGAC TGTCATCAAG GGTTTGAAAG	4140
TAGACCGTGT TCAAGCAAGT GCTGAAGAGA AGAAATACTT TGCTGGAGAA GATGCTCATG	4200
TCTTTGAAAT AGAAGGTTTG GATGAAAAAG GTCAAGATGT TGATCTCTCT TATGCTTCTA	4260
TTGTGAAAT CCCAATTGAA AAAGATAAGA AAGTTAAGAA AGTATTTTTC TTACCTGAAG	4320
GCAAGAGGCG AGTAGAATTG GCTTTTGAAC AAACGGATAG TCATGTTATC TTTACAGCAC	4380
CTCACTTTAC TCATTATGCC TTTGTTTATG AATCTGCTGA AAAACCACAA CCTGCTAAAC	4440
CAGCACACA AAACACAGTC CTTCCAAAAC CTACTTATCA ACCGACTTCT GATCAACAAA	4500
AGGCTCCTAA ATTGGAAGTT CAAGAGGAAA AGGTTGCCTT TCATCGTCAA GAGCATGAAA	4560
ATACTGAGAT GCTAGTTGGG GAACAACGAG TCATCATACA GGGACGAGAT GGACTGTTAA	4620
GACATGTCTT TGAAGTTGAT GAAAACGGTC AGCGTCGTCT TCGTTCAACA GAAGTCATCC	4680
AAGAAGCGAT TCCAGAAATT GTTGAAATTG GAACAAAAGT AAAAACAGTA CCAGCAGTAG	4740
TAGCTACACA GGAAAAACCA GCTCAAAATA CAGCAGTTAA ATCAGAAGAA GCAAGCAAAC	4800
AATTGCCAAA TACAGGAACA GCTGATGCTA ATGAAGCCCT AATAGCAGGC TTAGCCAGCC	4860
TTGGTCTTGC TAGTTTAGCC TTGACCTTGA GACGGAAAAG AGAAGATAAA GATTAAATAT	4920
CGAAAAATCT TGTGAAATCT TTCCG	4945

(2) INFORMATION FOR SEQ ID NO: 48:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 2502 base pairs
 (B) TYPE: nucleic acid

431

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 48:

GACAACTCAA GTAGCTTTT CTTATTTTGA AAAAGGAGAT CAGAGTTTAA CTATGTCAGA	60
AAAATCACAA TGGGGGTCGA AACTTGGTTT TATTCTAGCA TCTGCTGGCT GGCCATCGGG	120
CTTGGTCCG TTTGGAAGTT TCCCTACATG ACTGCTGCTA ATGGCGGTGG AGGCTTTTFA	180
CTAATCTTC TCATTCCAC TATTTTAATC GGTTCCTC TCCTGCTGGC TGAGTTTGCC	240
CTTGGCCGTA GTGCTGGCGT TTCCGCTATC AAAACCTTTG GAAAACCTGG CAAGAATAAC	300
AAGTACAAC TTATCGGTTG GATTGGCGCC TTTGCCCTCT TTATCCTCTT ATCTTTTAC	360
AGTGTATCG GAGGATGGAT TCTAGTCTAT CTAGGTATTG AGTTTGGGAA ATTGTTCCAA	420
CTTGGTGGA CCGGTGATTA TGCTCAGTTA TTTACTTCAA TCATTTCAA TCCAGCCATT	480
GCCCTAGGAG CTCAAGCGGC CTTTATCCTA TTGAATATCT TCATTGTATC ACGTGGGGTT	540
CAAAAAGGA TTGAAAGAGC TTCGAAAGTC ATGATGCCCC TGCTCTTTAT CGTCTTTGTT	600
TTTATCATCG GTCGCTCTCT CAGTTTGCCA AATGCCATGG AAGGGGTCT TTAATCCTC	660
AAACCAGACT TTTCAAACT GACTAGCACT GGTCTCCTCT ATGCTCTGGG ACAATCTTC	720
TTTGCCCTCT CACTAGGGT TACAGTCATG TTGACCTATG CTTCTTACTT AGACAAGAAA	780
ACCAATCTAG TCCAGTCAGG AATCTCCATC GTAGCCATGA ATATCTCGAT ATCCATCATG	840
GCAGGTCTAG CCATTTTCCA AGCTCGATCC CCCTTCAATA TCCAGTCTGA AGGGGGACCC	900
AGCCTGCTCT TTATCGTCTT GCCTCAACTC TTTGACAAGA TGCTTTTGG AACCATTTTC	960
TACGTCTCT TCCTCTTGCT CTTCTTTT GCGACAGTCA CTTTTTCTGT CGTGATGCTG	1020
GAAATCAATG TAGACAATAT CACCAACCAG GATAACAGCA AACGTGCCAA ATGGAGTGT	1080
ATTTTAGGAA TTTTGACCTT TGTCTTTGGC ATTCCTTCAG CCCTATCTTA CGGTGTCATG	1140
GCGGATGTT ACATTTTGG TAAGACCTT TTTGACGCTA TGGACTTCTT GGTTTCCAAT	1200
CTCCTCATGC CATTTGGAGC TCTCTACCTT TCACTTTTFA CAGGCTATAT CTTTAAAAAG	1260
GCTCTTGCAA TGGAGGAAC CCATCTCGAT GAAAGAGCAT GGAAACAAGG ACTGTTCCAA	1320
GTCTGGCTCT TCCTTCTCG TTTCTTCGTT TCGTCATTCC AATCATCATC ATTGTGGTCT	1380
TCATTGCCCA ATTTATGTAA TCAAAAAGGA CTTGAGTAGT GAACTCAGGC CCTTCTTTT	1440
TATGGATGGC TAACAATCAA TTCCAAACCT TGCCCTTCCA GAGTCCAAGC TTCAACATCA	1500
CTTGGTAGGA TAAAGTGGCT GCCTTTTGA ATGGATAAT TTTTCCCGTC AACAGTAGC	1560

432

TGACCTTGAC CAGCCAAGAC ACTCAATAAG CTGTAGTCAG CTGTCTTTTC AAAGTCAACT	1620
TTTCCAGTAA TTTCCCACTT GTAAACTGCG AAGAAATCAT TAGATACAAG GAGAGTGGAA	1680
CGCAAATCAT CTGCTTTAAC AGTTACAGGA CGGCTATTG CTGGCTCACC AATGTTCAAG	1740
ACATCGATGG ATTTTTC AAG ATGAAGTTCA CGCAAGTTGC CTTTGTCAATC CTTGCGGTCA	1800
AAGTCATAGA CGCGATAGGT GGTATCGCTA GACTGCTGGG TTTCAAGGAT TAAGATACCC	1860
GCCCCGATAG CGTGATAGT CCCGCTTGGT ACATAGAAGA AATCTCCAGC CTTAACAGGG	1920
ACTTGTGTC ACAAATCATC CCAGTTCTTG TCCTCGATTT GCTGGCGGAG TCTTCTTTT	1980
GACTTGGCAT TGTGACCGTA GATAATCTCT GAACCTTCAT CCGCTGCGAT AATGTACCAG	2040
CATTCTGTTT TTCCGAGTTC GCCTTCATGC TCGAGTCCAT AAGCATCGTC TGGGTGAAC	2100
TGGACACTGA GCCAGTCGTT GGCATCGAGG ATCTTGGTCA AAAGTGGAAA TACAGGTCTT	2160
GGACGATTGC CAAATAATTC ACGGTGTTCC GCATACAAAG TAGCAAGATC TGTTCCTCG	2220
TAACGACCAT TGGCAACTTT AGAGACTCCA TTTGGATGGG CTGAGATGGC CCAATATTCT	2280
CCGATTTTCT CACTTGGGAT GTCGTAGCCA AACTCATCAC GTAGCTTGGC TCCACCCAG	2340
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CCATGTCTAT AAATGACATC CTTGTACCAA TAGAAGGACT TCTTCTTGCT ACGTTTGAGA	2580
GCTCCGTTTC CTACATTATC TCGATCTACA TAGATAAAGC CATAGCGCTT ATTCATTTCC	2640
CCTGTGCCAG CTGAAACCGG ATCGATACAG CCCCAAGTCG TATAACCAAG CAACTCAACC	2700
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TAGTCATCTG CTACATAACC ATTCTCATCC GGTGTATCCA TAGCACCAG TCCATTTTCT	2820
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GAAGAAATCC AAACCATCAA AACACTTTTA AAAGACTCTC GTACAGCTAA ATATCATAAA	2940
CGCCTTCAAA TCGTTCTATA GTAAATGAA ATAAGAACAG TACAAATCGA TCAGGACAGT	3000
CAAATCGATT TCTAACAATG TTTTAGAAGT AGGGGTGTAC TATTCTAGTT TCAATCTACT	3060
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434

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CGCAAAGAGT	GGAGATGTAC	GCCACATGTT	CTTAGGTGTC	ATGTGAAGGT	GACGAGTAGA	5280
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CATGTAATCA	CGCCAGTTT	GGTGTCTT	AACGTTTGCA	CGCCACCATG	GAGTTGATT	5460
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CATTACTTTT	AGTCTATTTT	ACTAAAAAT	AACAGAAGGG	AACTGGTCAG	AACAGATACA	6720
GAATAAAGG	CCATGGCTAG	ACCTGCCAAT	TCTGGGTGTA	GAGCCAGTCC	AACACCTGAA	6780
AAGACTCCTG	CTGCAATCGG	AATTCCGACA	ACATTGTAGA	TAAAAGCCCA	GAAAAGATTG	6840
AGTAGAATTC	GATGAAAGGT	TTTCTTACTC	ATATCAAAGG	CACGAACCAC	TCCTAAAAGA	6900

435

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436

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437

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438

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GTTCGGGGCT AGAAGCACT TCCTTTGAAG CAACCTGTGT CATCTCATAG GAAGGGATTT	15120
GAAACACTTC CCTTAGTTTT CCGTCTCTTA GCTCCACCAT ATGGTCGATA TAGGCTTTAT	15180
AGTCAGATAA ATCATGGTCG CACAAAATAA CTGTCTTCCC ATCATAGACC AACTCTTTTA	15240
GAATCTCCAA TATCTCGATT CTGCTCTTGC GGTCAATGGA AGCGAAGGGC TCATCCAAGA	15300
GATAGACCCT AGGATTCATG GCAAAGAGGA CAGCCAGCGC TGCTTTTGC TTTTCCCAC	15360
CTGATAAGTG ATGGATGAGA CGGTGCAAGA TGTCCTTGCA ACGACATTGC TGGACAACCT	15420
CTGCTATTTT AGAATCAATT TCCTGAAGGT GATAGCCGAT ATTTTCCATG GTAAAAACCA	15480
ACTCCTCAA CAAGCTCTCC ATGGTAAATT GATGATTAGG ATTTTGCAAG AGAATACCA	15540
CCGTCTGGAC ACGTTCGACG ATAGAAAGCT GACTGACCTC GCTCCCATCT ATCAGGACTT	15600
GACCGCTATA GGGAAGAGAA CTAACCTGGG CAATCATTTG AAAGAGGCTG GATTTTCCAG	15660
ACCCACTACT CCCAACTAAC AAGGTAAAGG CTTGCGCATG AAAAGTAAAA TCAAACGGCT	15720

440

CAGAGAAGAT TGGGGACTGA ATCGCTCGTA GTTCCAGACC CATCTATGCT TTTCTCCAG	15780
TTGCAAACTG ATGATAGAGT TTGACAATGG CACGAACCAA GATGGTACAG AAGAAATAAA	15840
CAGAAATAAA ACGTACCACA AGCAAGGAAA GGACAAACGG AAGGGAAAAG GCGTAGTAAC	15900
CTAACTTAAT GTATTCATAG ACAAAGCTAA CAAGCGTAAT CCCAATACTA TTAGCAGTTA	15960
GAGAGAGCCA ACTTTCATAG CGATTCTTAG TTACGATAAA ACCAAATTCA CTTCCCAAAC	16020
CTTGAACAAA GCCAGACAAA AGAGCTCCTA GACCAAATTG GCTACCATAA AGGACTTCAG	16080
CAAGCGCAGC TAGCACTTCT CCAATCGTTG CACTTCCGAC TCTCGGAACA AAGATGGCAG	16140
CAATGGGGCG AGCCATACAC CAGAGACCGA AGAGGATTTT ATTGGCAAAG GCCTGCAAAC	16200
CAAGAGGTGT TAAGAGTAGA CTGAGAATAT TATACACATA TCCTGAACCA ACGAAAACCC	16260
CACCAAAAAA GATAGACAAG AAAGCAAGCA AGATAACATC TTTTAACTGC CATTTTTCAT	16320
ACATAAAAAA CTCCTTTTTT TAAAGAAAAG TGAGGCACTC AAGAAGACCG ACCTAAATAC	16380
TTTGTATAGC AGACTGAATT TAGAACAGTA CACAAGAACA CTAAATATT TCTAGAAATT	16440
AATTGAATT TTCTAATTGA TTTGTTGCA TCTTATTCA ATCTACTATA TCATCTTCAT	16500
CCAGTTTCGT AAAAGAAAAA ACTCTAATTA CAGATACAAA TTAGAGTTCA GCTTACAAGA	16560
TTAGACAGTT CTTTTCGACA TACGAAAAA ACATTTTACA TTTCCCTTCG CCAGTCTTAA	16620
CTGTATCAGG TTCAATGGGT ATCATCTCAG CCTAAAGCAC CCCAAATGTC TTTATTATTT	16680
AATTATGTGA TTATTATAAC ACACATTTTA TACTAGTTCA AGAAATTGAA CTGGAATAC	16740
AGCCTTGAC TCACAAAGAC AGCAGATCTT TCTTTTGCAA AAAACAAATG ACCTGTTTGA	16800
TGAATTAGCC ATTCAGCTG AATCTGGACA TAGCTTTTAA AAAAGGAAA ATCCTACTTA	16860
CTTAGAATCC AAGGATAGAT ATCTATTGTT CACTCATTTT CCGAACAGTT TTTTCTATAT	16920
TTTTTGCATA CGATATTGCC GAAATGATTG AAACGCCATC CATATTGGTC TTTATAATGT	16980
CTTTAATATG TTTCTGTCTG ATCCACCAA TTGCAACTAA AGGCATTTGT GGCAATAGTT	17040
TTCTCATCAA TTCAAGACCT TCATAACCTA TAGTACCACC AGCATCATCC TTGACTGGG	17100
TACCAATAC AGGCCCAACA CCTACATAAT CTACATATTC AACTTTTGAT TGTTGAAATT	17160
CTTCTTCGTT TCTTATAGAA AGACCAATTA TTTTATCTGG CATCAATTTT CTAATTTTAT	17220
CAACACCAAT ATCATCTTGA CCTACATGTA CGCCATCGGC GTCAATTTC ATTGCTAAAT	17280
CTATATCGTC ATTAACGATA AATGGAACAT TGTATTTTTT ACAAAGTTCT TTAATTTGGA	17340
TAGTAGCTC AAGTTTCTT AAGCCTTCTA AAGCACCTC ACCTTTTCT CGAAATTGAA	17400
ATAAGGTTAT ACCACCTTTT AAGGCTTCCT CAACGACTGT ATATAGATTT TTTCTTGGC	17460
AAGTAGTCGT TCCACAAATA AAATATAGTT TTAGTAATTC TTTATGAAAC ATCTTACTTC	17520

441

ACTCTTTTGA	ATTCCTTTAC	ATCTTCATCT	GTAATCTCGT	ATAAGGCATT	TATAAATTCA	17580
ACTTTAAATG	TCCCAGGAAG	ATGTCCATTT	GGACGTTTTT	CTGCTATTTC	TCCAGCGATA	17640
TTGTAAACCA	ACACTGCTGT	TTTTAATGAT	TTCAATTCTT	GACCTTTTTC	TAGTCCGATA	17700
AAGCTTGCTA	CTACAGCTCC	TAATAAGCAT	CCTGTCCCAA	TGACTTTCGG	CATCATAGCA	17760
CTACCATTAT	GAATCATTAC	CACTTCTCCA	TTAACAGCAA	TGGCATCCAC	TTCACCTGTT	17820
ACTACTATTG	GAATATTGAA	CTTCTCATTT	GCTGCTAGAG	CAATTTCGTC	AATATTATCT	17880
ACGCCCCGAC	TATCTACTCC	TTTAGATGCC	ACATCTATTTC	CTACTAAAGA	GGCAATCTCG	17940
CCAGCATTTC	CTCTAATCGC	TGCTAGTTTA	TAATTGTTGA	TTAGATCATC	TGCTACTTTT	18000
TTTCTATATT	CTCCTGCTCC	ACAGGCTACA	GGATCTAAAA	CTGCTGGGAC	ATTATATTTT	18060
TCTGCAATTT	TCAGAGCAGC	TTGGTATAAT	TTCCAATTTT	CATCTGTCAA	TGTTCTCATG	18120
TTTATTAATA	AACCACCAGC	ATACTTTAAC	AAATCCTCTA	AATCTGCTGG	AAACTCACTC	18180
ATGGCTGGTG	AGGCGCCCAG	TGCTACTAAT	CCATTTGCTG	TGAAATTTTT	TACTACATCA	18240
TTGGTTATAC	AAATGACCAA	TGGTGCTTTT	TCTTTTAATA	ATTTTAAACT	TGTCATATTG	18300
AAATCCTTCC	TTTTCACTTT	ATACGATCTA	CTAATTTCSA	TTTATCTTTA	GTTGAGAATT	18360
TTTTTTCATTT	ACATTGAATG	ATTTATACTC	AATGAAAATC	AAAGAGCAAA	CTAGGAGGCT	18420
AACCGCAGGT	TGCTCAAAAC	ACTGTTTTGA	GGTTGTGGAT	AGAACTGACG	TGGTTTGAAG	18480
AGATTTTCGA	AGAGTCTTAC	CTCATCAAAT	TTGTAAATAT	CATGAGCCTT	CTCTAGACAT	18540
CGTAACCAAT	ATCAAAAAAA	GCTAATTCTA	AAGCGACTGC	TTGATTCCAG	CGTTGCTGAA	18600
GTTCTGTCAA	ATCTTCTCGA	TTTTTACCGA	CACGATTGAG	TTGTCGAACC	AGAAATTGAA	18660
CCCACTCTGC	AAAGAAAGGA	CCTCTGTGGA	GATTGATCCA	TTCCGAATGA	ATATAGACTT	18720
CAGGTAAAGC	CAAATCTTTA	GAACCCAGT	CTAAATAGAG	ACCTTCTGCA	ATGACCAGCA	18780
TGACCAAAAG	ATGGGCATAG	TCTGATGAAG	CCACGCCCCA	ATACATTAGA	TCCTGAAAGG	18840
CTTTTGTTAC	AGGGTGCAAA	GTCACCTCTA	GATAGTCATT	CTCTGCTACT	TTTAACTCTT	18900
TAAAGCCTT	TTGGAAATAA	CCATCTTCAT	CTGCTTCAAG	AAAGCCTAGT	TGCTTGGCAA	18960
AACGAAGCTT	GGATTCAAGT	TTATCTGCGT	GACTACGCAG	GCACCCAGCA	TGGATAAGAA	19020
GGCATCAAAG	AAGTGATAAT	CTTGAATCAG	ATAGTCCTTT	AAGACCTTAT	TCTCAATTGT	19080
CCCCGCAAAA	AGTTCCCTTA	AAAACGATG	ATTGATTGCA	GCCTGCCAAT	CCTTCTGACT	19140
GCTTTTAAAT	AATTCTCCAA	CAGTCAAACC	TGGCTGAAAT	GCATAGTCTT	GTGTTTCCAT	19200
ATTTACTTCT	CCTCTCTTTA	CTTGTTAGTA	ATTAATAAAA	CACCAAGAAA	TATCAAGCAA	19260

442

AATCGTAATT	CCACTTGATC	CTTTTAAAGC	ACATCGAGAG	CATTTGCAGA	GAGCTAACTA	19320
AACAAGCCTA	TCCAGTTTAT	ATAAACAAAA	AACTCCAATT	ACAATCAAGA	ATTAGAGTTG	19380
ACTTACAAGA	TTAGACCGTT	CATTTACCA	TACGAAAAAA	CTGTTACAT	TCCCCTTCGC	19440
CAGTCTTAAC	TGTATCAGGT	TCAATGGGTA	TTATCTCAGC	CTAAAGCACC	CCAAATGTCT	19500
CTATTATTTA	ACTACTGAAC	CAGTATAGCA	AAAAATGAAA	GCCCTAGCAA	GATATTGAC	19560
CGAAAAATAT	CTTTATATAT	AATATATTGA	AACTAGAATA	GTACACCTCT	ACTTATAAAA	19620
CATTGTTAGA	AATCGATTTG	ACTGTCCTGA	TTGATTTGTC	CTATTCTTAT	TTCATTTTAC	19680
TATAGTTTTC	GATAGCAATT	TATTCTTCCA	ATACACGAAG	AAAAACCTCC	ACATTCAGTG	19740
GAGGCAATCT	GTTTTATCAA	TACAATTTTA	AGTCACGAGG	GTCAACTGGG	AAGGTTGGGT	19800
TGTATGGATT	GTGACGGAGC	TTGAAGTGTT	TGACATCTTC	AATGGTCTGA	GTTCCAGACA	19860
ATTGCATAAC	TGCTCTCAAT	TCCGCATTCA	AGTGTTCAAA	GACTTGACGC	ACACCGACAC	19920
TACCACCGAG	AGCCAAGCCA	TAGATGACAG	GGCGTCCAAT	AGCAACCAAG	TCTGCTCCTG	19980
ATGCCAAGGC	TTTAAAGACG	TGTTGACCAC	GACGAACACC	AGAGTCAAAG	ACAATCGGCA	20040
CACGTCTATC	AACTGCTTCT	GCCACTTCTT	GAAGCGAGTC	AAAGGCAGCT	GGTCCACCGT	20100
CGATTTGACG	ACCACCGTGG	TTGGTTACCC	AGATACCAGA	AGCTCCTGCA	GCAAGCGAAC	20160
GTTCAACGTC	CTCACGGCAT	TGTGGTCCCT	TGACATACAC	AGGAAGACCA	GAGTATTCAG	20220
CGATAAATTC	TACATCGCGT	GGAGACAAGC	GTTGTTTAGC	TGATTTGTAA	ACAAAGTCCA	20280
TTGATTTACC	AGCACCTTCT	GGCAGGTATT	CTTCAACAAT	CGGCATGCCA	ACTGGGAAGA	20340
CAAAACCATT	ACGCTTATCC	ACTTCACGAT	TCCCCCTTAC	AGTAGCATCT	GCCGTCAAGA	20400
CAATCGCTTT	ATAACCTTCA	GCCTTCACAC	GGTCCATGAT	GTGGCGGTTG	ATACCGTCAT	20460
CCTTACTAAA	GTAATATTGA	AACCAATGAG	GTGTCCCTTG	GAGGGCTTCA	GAAATCTCTG	20520
GAAGGTCAAC	AGTAGAGTAA	GAAGTGGTTG	TATAAGAGA	ACCAAACTCA	TGCACACCAC	20580
GCGCAGTCGC	CACCTCCCCC	TGTTCAATTG	CCAATTTATG	AGCCGCAACA	GGTGCCATAA	20640
TGATTGGAGA	AGATAGTTTT	TCACCTGCAA	ATTCAATCTC	TGTACTTGGA	TTTTCTACAT	20700
TGCAAAGTGT	ATGAGGAACG	ATGAGCTTGT	GGTTAAAGGC	ACGGATATTC	TCTCTTAAAG	20760
TGAAAGTATC	TTCGCCCCCA	CTAGCGATAT	AGCCAAATGC	TGCTTTAGGA	ATAACTTGTT	20820
GCGCCATTGG	CTCCAAATCA	TAGGTATTGA	TGAATCTTAC	ATGACCTTCT	GCATTGCTTG	20880
TTTTGTATGA	CATAAAATGT	CCTCCTTAAT	AAGTAAGCGT	TTACTTTGTG	TATTACAAAA	20940
ATATCTTAAC	TCTTTTCAA	AACTTTTAAA	ATATTTTGTG	TGGAAATTTT	AGAAATTTTA	21000
TGTCTATGAT	AAAAATCCTT	ATAACGGCAA	TAAAAAATAG	ATATTATCCA	AAGAAGATTT	21060

443

TAAGTGCTAC AATAACTGTA TTATTTCTAG ATGGGAGGTT CTATTTTGG ATTGATCCAT	21120
TGTTGAACAA TATCTACCAC TATATCAAAA GGCATTCTTT CTGACCTTGC ATATTGCAGT	21180
TTGGGGAATT TTGGGATCCT TTCTGCTCGG TTTAATCGTT AGTATCATCC GACATTATCG	21240
AATCCTTGTT TTGGCGCAAG TAGCGACAGC CTACATTGAA TTGTCACGTA ATACGCCCTT	21300
TTTGATTCAA CTCTTCTTTC TCTACTTCGG TCTTCCCGA ATCGGGATTG TCCTATCTTC	21360
AGAAGTCTGT GCAACGCTTG GGCTTGCTT TTTAGGAGGC TCCTATATGG CAGAATCTTT	21420
CCGAAGTGGG CTGGAAGCCA TCAGTCAAA CCAGCAGGAG ATTGGCCTCG CTATTGGTCT	21480
GACACCTCTA CAGGTCTTTT ACTATGTGGT TCTTCCGCAA GCAACAGCGG TGGCACTCCC	21540
CTCCTTTAGT GCCAATGTCA TTTTCCTTAT CAAGGAAACC TCTGTTTCT CAGCAGTGGC	21600
TTTGGCCGAC CTCATGTACG TCGCCAAGGA TTTGATTGGT CTCTACTATG AGACAGACAT	21660
TGCGCTAGCT ATGTTGGTAG TTGCTTATCT AATCATGCTG CTACCCATCT CACTGGTCTT	21720
TAGCTGGATA GAAAGGAGGC TCCGCCATGC AGGATTCGGG AATCCAAGTA CTCTTCAAG	21780
GAAATAATCT CCGAGAATC TTACAGGAT TGGGCGTTAC GATTGGGATA TCCATCCTGT	21840
CTGTCTCTT ATCCATGATG TTCAGAACAG TCATGGGAAT CATCATGACC TCCCATTCTA	21900
GAATCATACG ATTTTAAACA CGATTGTATC TGGAAATTAT CCGTATCATG CCCCAGCTGG	21960
TGCTACTCTT CATCGTTTAC TTTGGCTTGG CTCGAAACTT TAATATCAAT ATCTCAGGTG	22020
AGACTTCAGC TATTATCGTT TTTACCCTCT GGGGAACAGC TGAAATGGGA GACTTGGTAC	22080
GTGGAGCTAT CACTTCTCTC CCTAAACATC AGTTTGAAAG TGGACAGGCA CTCGGCTTGA	22140
CTAATGTTCA ACTTTACTAC CACATCATCA TCCCACAAGT CTTAAGAAGA CTGTACCGC	22200
AGGCTATCAA TCTTGCTACT CGGATGATTA AAACCACTTC ATTAGTTGTT TTGATTGGGG	22260
TTGTGGAAGT GACCAAAGTT GGACAACAAA TCATCGATAG CAATCGCCTG ACCATCCCAA	22320
CTGCTTCATT TTGGATTTAT GGAACCATTC TAATCTTATA TTTTCGCAGTT TGCTACCCTA	22380
TTTCCAAACT ATCCACTCAC TTAGAAAAAC ATTGGAGAAA CTAAATGTCT GAAACTATCT	22440
TAGAAATCAA GGAACATAAA AAATCCTTCG GAGACAATCC CATCCTCCAA GGACTTTCTC	22500
TAGAAATCAA AAAAGGGGAA GTTGTGTGCA TCCTAGGGCC ATCTGGTTGT GGGAAAAGTA	22560
CCCTCCTTCG TTGCCTCAAC GGCTTAGAAA GTATTCAAGG TGGAGATATT CTTCTGGATG	22620
GTCAGTCTAT CGTTGAAAAT AAAAAAGATT TTCACCTAGT TCGCCAAAAG ATTGGCATGG	22680
TCTTTCAAAG TTATGAACTC TTTCCCCATC TGGATGTCTT ACAAACCTC ATCCTAGGCC	22740
CTATCAAAGC TCAAGGAAGG GACAAGAAAG AAGTAACGGA AGAAGCTTTG CAATTACTAG	22800

444

AGCGTGTCGG TTTGCTGGAT AAACAACATA GCTTTGCCCG TCAATTATCT GGTGGACAGA	22860
AGCAACGTGT TGCAATTGTC CGTGCCCTCC TAATGCATCC AGAAATCATC CTTTTTGACG	22920
AGGTGACTGC TTCGCTGGAT CCAGAAATGG TCGTGAGGT GCTGGAACCT ATCAATGATT	22980
TGGCCCAAGA AGGCCGTACC ATGATTTTAG TAACCCACGA AATGCAGTTT GCCCAAGCCA	23040
TTACTGACCG GATTATCTTC CTCGACCAAG GGAAAATCGC TGAAGAAGGA ACAGCTCAAG	23100
CCTTCTTTAC CAATCCGCAA ACCAAACGAG CCCAGGAATT TTTAAACGTC TTTGACTTTA	23160
GCCAATTCGG CTCATATCTA TAAAGGAGAT TCTTATGAAA CTATTCAAAC CACTCTTAAC	23220
TGTTTTAGCA CTTGCCTTTG CCCTTATCTT TATCACTGCT TGTAAGCTCAG GTGGAAACGC	23280
TGGTTCATCC TCTGAAAAA CAACTGCCAA AGCTCGCACT ATCGATGAAA TCAAAAAAAG	23340
CGGTGAACCTG CGAATCGCCG TGTTTGGAGA TAAAAAACCG TTTGGCTACG TTGACAATGA	23400
TGGTCTTAC CAAGGCTACG CTACGATATT GAACTAGGGA ACCAACTAGC TCAAGACCTT	23460
GGTGTCAAGG TTAAATACAT TTCAGTCGAT GCTGCCAACC GTGCGGAATA CTTGATTTCA	23520
AAACAAGTAG ATATTACTCT TGCTAACTTT ACAGTAACTG ACGAACGTAA GAAACAAGTT	23580
GATTTTGCCC TTCCATATAT GAAAGTTTCT CTGGGTGTCG TATCACCTAA GACTGGTCTC	23640
ATTACAGACG TCAACAACCT TGAAGTAAA ACCTTAATTG TCACAAAAGG AACGACTGCT	23700
GAGACTTATT TTGAAAAGAA TCATCCAGAA ATCAAACCTC AAAAATACGA CCAATACAGT	23760
GACTCTTACC AAGCTCTTCT TGACGGACGT GGAGATGCCT TTTCAACTGA CAATACGGAA	23820
GTCTTAGCTT GGGCGCTTGA AAATAAAGGA TTTGAAGTAG GAATTACTTC CCTCGGTGAT	23880
CCCGATACCA TTGCGGCAGC AGTTCAAAAA GGCAACCAAG AATTGCTAGA CTTTCATCAAT	23940
AAAGATATTG AAAAATTAGG CAAGGAAAAC TTCTTCCACA AGGCCTATGA AAAGACACTT	24000
CACCCAACCT ACGGTGACGC TGCTAAAGCA GATGACCTGG TTGTTGAAGG TGGAAAAGTT	24060
GATTAGTCAT TAACTCTTAA AAGGAACCTG ATTTTAAGCT CCAATCCCTT TTTAAGATT	24120
TACCTATAAC ATCCTGAGTC TATCTAAGAT GTTCAATCTG AACACAGTGT ACATACTTTA	24180
TCTTCTATTG CATATACTTT ATCACATAAG ATACGAATAT CCTCTTCACT ATGACTAGCA	24240
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AACTTTGATT TATCCAAGGC ATTCATAGGT TCATCTAGTA AAAGAATAGA GGGATTCTCC	24360
ATAATTGCTT GAGCAATCCC TAGCTTTTTT CTCATACCTA GCGAATAAGT TTTAACTTTC	24420
TGGTCTTTTT GCTCATATAG ACCAACTATT TTCAGTGAT CATTTGATTC CTGATTACCA	24480
ACTACTCCTC GTATGCTTGC CAAATATTGT AAATTCTTAA AGCCACTATA ATAATTTATA	24540
AAACCAGGTT CTTCAATCAA AGCTCCCAA TTAGCTGGAA TTTTCTCTC AGGAACAATA	24600

445

TTTTCCCAT	TGATTAACAC	TTCTCCATAA	GACGGACTAT	ATAAACCAGC	TATTAATTTA	24660
AACAATACAC	TTTCCCTGA	GCCATTCGCA	CCAGTAATTC	CTATAATTTT	CCCCTGTTTA	24720
CAACTAAAGT	TAAGGTTTTG	AAAAACACAT	GTCTTTTTTA	ATTTCAACTC	AATATTTTTT	24780
AATGTAATTA	TTTCATTTCAT	TCTATAAACC	TCCTCTTTTG	ACGAGTGAAA	TAGAAAATGC	24840
TTTGAAAAAG	AAAGACTAAA	AATAGCAACT	GAAGAAATAA	ATCTCGTCCT	ATATCTCCAT	24900
TCCCTCGATT	CAAAATATAA	AATAGATAAT	TAGTTTCGATT	TCCTACAAAT	AGACCACCAA	24960
ACACAATCAT	GAGTAAAAAG	AAACTAACGC	AAGCAAAGTT	CG		25002

(2) INFORMATION FOR SEQ ID NO: 49:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11443 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 49:

CAGGTACGGT	GAGGCGCAAC	TAAATATAA	TTTTCATCTT	GATTAGGAAT	TTTATCAGTA	60
TTATGATAGT	GAGCATTGCC	ATTGATGGAC	CATAAGAGCA	ATACAACTAA	TCCACGCAAA	120
TAAGTATAAA	ACATGCGATC	TCCTTCGATT	GTTTCTTGT	TATTATTATA	CCTTATCAAA	180
GGAGGGCTGG	CAAACTTTTC	CCTTGACTAG	ATACATATTT	AGGATGAAAT	TAGAATTCTG	240
TTAAAAAAA	TGATATAATA	GAATTTATGG	ATAAAAAATA	GATTATGGGA	TTAACCCAAA	300
GAGAAGTCAA	GGAAAGACAG	GCTGAGGGTT	TGGTCAATGA	CTTTACCGCA	TCAGCCAGTA	360
CCAGCACTTG	GCAAATCGTT	AAACGAAATG	TCTTTACCCT	TTTAAACGCT	TTGAACTTTG	420
CCATTGCTTT	GGCTCTTGCC	TTTGTGCAGG	CTTGGAGCAA	TCTGGTCTTC	TTTGCTGTTA	480
TCTGCTTTAA	CGCTTTTCT	GGGATTGTGA	CCGAGCTACG	AGCCAAACAC	ATGGTGGACA	540
AGCTCAATCT	CATGACCAAG	GAAAAGGTCA	AAACCATCCG	TGATGGTCAG	GAAGTTGCTC	600
TTAATCCTGA	AGAATTAGTG	CTAGGAGATG	TCATTTCGTT	GTCTGCAGGA	GAGCAGATTC	660
CTAGTGATGC	CTTGGTTTTG	GAAGGCTTTG	CGGAAGTCAA	TGAAGCCATG	TTAACGGGAG	720
AAAGTGATTT	GGTGCAAAAG	GAAGTTGACG	GCTTACTTTT	GTCAGGAAGT	TTCTAGCCA	780
GTGGGTCAGT	TTTATCTCAA	GTTCAACCATG	TCGGTGCAGA	CAACTATGCT	GCCAACTCA	840
TGCTTGAGGC	TAAGACCGTT	AAACCCATCA	ACTCCCGTAT	CATGAAATCG	CTGGACAAGT	900
TGGCTGGTTT	TACTGGAAG	ATTATCATTC	CCTTTGGTCT	GGCTCTCTTG	CTGGAAGCCT	960

446

TGCTTTTAAA AGGCCTGCCT CTCAAGTCAT CCGTTGTAAA CTCGTCGACA GCTCTTTTGG	1020
GAATGTTGCC TAAGGGAATT GCCCTTTTGA CCATTACTTC GCTCTTGACT GCAGTGATTA	1080
AGTTGGGCTT GAAAAAGGTC TTGGTGCAGG AGATGTACTC TGTGAGACC TTGGCGCGCG	1140
TGGATATGCT CTGTCTGGAC AAGACGGGTA CCATCACCCA AGGAAAGATG CAGGTGGAGG	1200
CTGTTCTTCC GTTGACGGAA ACGTATGGTG AAGAGGCTAT TGCCAGCATC TTGACTAGCT	1260
ACATGGCCCA TAGTGAGGAT AAGAATCCAA CTGCCCAAGC CATTGCCCAG CGTTTTGTGG	1320
GAGATGTTGC TTATCCTATG ATTTCCAATC TTCCCTTCTC GAGCGACCGC AAGTGGGGGG	1380
CTATGGAGTT AGAAGGCTTG GGGACAGTTT TCTTAGGGGC ACCTGAGATG TTGCTTGATT	1440
CTGAAGTCCC AGAAGCTAGG GAGGCCTTGG AGAGAGGATC ACGTGTCTTG GTCTTAGCTC	1500
TCAGTCAGGA GAAATTAGAC CATCACAAC CACAGAAACC ATCTGATATT CAGGCTCTAG	1560
CCTTGCTGGA AATCTTGGAC CCCATTCGAG AGGGAGCAGC AGAGACGCTG GACTATCTCC	1620
GTCTCAGGA GGTGGGACTC AAGATTATCT CTGGTGACAA TCCAGTTACG GTGTCCAGCA	1680
TTGCCCAGAA GGCTGGTTT GCGGACTATC ACAGCTATGT AGATTGCTCA AAAATCACCG	1740
ATGAGGAATT GATGGCCATG GCGGAGGAGA CAGCTATTTT CGGACGTGTT TCCCCTCATC	1800
AAAAGAACT CATCATCCAA ACGTTGAAAA AAGCGGGACA TACAACGGCT ATGACAGGGG	1860
ACGGGGTTAA TGATATCTTG GCCCTTCGTG AGGCGGATTG TTCTATCGTG ATGGCGGAGG	1920
GGGATCCAGC AACCCTCAG ATTGCCAATC TGGTTCTCTT GAACTCAGAC TTAAATGATG	1980
TTCTTGAGAT TCTCTTCGAG GGTGTCGCG TGGTCAATAA CATTGCCCAC ATCGCCCCGA	2040
TTTTCTTGAT AAAGACCATC TATTCCTTCC TGTAGCAGT CATCTGTATT GCCAGTGCTT	2100
TACTAGGTCG GTCAGAGTGG ATTTTGATTT TCCCCTTCAT TCCGATCCAG ATTACCATGA	2160
TTGACCAATT TGTGGAAGGT TTCCCACCAT TCGTTCGTGAC TTTTGAGCGA AATATCAAAC	2220
CTGTTGAGCA GAATTTCCTC AGAAAATCCA TGCTTCGTGC CCTACCAAGC GCTCTCATGG	2280
TCGTCTTCAG CGTCCTGTTT GTGAAAATGT TTGGCGCGAG TCAAGGTTGG TCTGAGTTAG	2340
AAATCTCAAC TCTACTCTAT TATCTCTTGG GGTCAATTGG TTCTTTATCC GTATTTAGAG	2400
CCTGCATGCC ATTTACCCTA TGGCGTGTCC TCTTGATTGT TTGGTCAGTA GGAGGTTTCC	2460
TAGCCACAGC TCTCTTCCCA AGAATTCAAA AACTGCTTGA AATTTCACC TTAACAGAAC	2520
AAACGTTGCC TGTTTATGGT GTCATGATGT TGGTCTTTAC CGTGATTTTC ATCCTGACCA	2580
GTCGTTACCA AGCGAAAAAA TAAATCAAAA CCACCAGTGT GAACTGGTGG TTTGTTCTGC	2640
GGCTATAAGC CGCTTCTACC GGCCAGGGCC AAAGGCCAC CGAAATAGCT TCCTCGCGCA	2700
CCACTTTCCC GAGCAGGTGC TAAAGCACCT TAGTTACTTC CTCTTATTTA TTTCGCCAGT	2760

447

AAACGGATCT ACTGACTCGA ATAACGTGAG CTGGTCTGCT ACTCTGTCTT CTTGTAATTG	2820
ATTCTGAATA TATTCAGCTA TCACCTTCTG ATTACGGCCT ACCGTATCTA CATAATAGCC	2880
TCTACACCAA AACTTGCGAT TGCCATATTT GTATTTTAAA TTCGCATGCT TATCAAAAAT	2940
CATCAAACCTG CTCTTGCCCT TTAATAGCC CATAAAGGAC GAAACACTAA GTTTCGGAGG	3000
AATACTGATA AGCATGTGAA TATGGTCTGA ACAAGCATTG GCTTCATGGA TTATTACACC	3060
CTTACGCTCA CATAAGTCAC GTATGATTCT TCCGATACTA GCTTTGTATC TGCCATAAAT	3120
GATTTGACGA CGATATTTGG GTGCAAAAAC AATATGATAT TTACAATTCC ATGTGGTATG	3180
TGATAAACTT TGATTATCCT CTCTCATGAG GTACCTCCTG TATGATATGT TGTAGTGGCG	3240
GAGAAACCAC TTCTATCTTA TCATTTTAGG AGGTTCTTTT TGTTACCACG CTAAAAGCTC	3300
TATGGAACCA CTAGCATAGC TAGTGGTTTT CGGGAGACAA CAAGAAAGAC TGCAATCTGT	3360
GGATTGCAGT TTTTATACG ATGGATCTAT CGTAGATCTG ATGTGCAAGG CCTACGTGCC	3420
GATCATCTAT CGGTGAACCC AAGAGCGACC CTCAGCCTG CTTGGATTGA GGTAAATAGAT	3480
TCAAATATCT GTAGTTAGAC TATTGAAGT TTGATGTAAG AAAGAGAAAG CGACAGATTG	3540
AAGTAATTTT AACTCTCTTC TATTGCTAGA ACAAATGGTC GGATAGGTTG GTAGTTGAA	3600
AATGAAGATG CTATCTATTG TTAAATGGAA CATAGTGTTA TTTATTAGAA AATCGTTTGG	3660
TTTATTTCTT ATCAAATACG AAAAGCAACT TAAATATTTT AACTAAAATA GATGTTATGA	3720
AGAAAAGGTA AAATGATTTT GGCATAGTGA GGTTCGTTC TATTTGATAT CATATTTTGG	3780
ATAAAAACAA AAATGTCCAT TGCAAAGGAC AAAATGCGAA GTATATTATT TTTTGAAAGC	3840
GATATAATGG ATTCATAAAG GAGGTGTATC GTGTCTAGAA AACAAGAACA AATGGAAACG	3900
TTGTGCTCC TTTTGCGAGA TAGTAAGGAT TATATATCTG CTAAAGTATT GGGAGAAAAA	3960
TTAAATTGCT CTGATAAAAC GGTTTATCGC CTTGTCAAGG GAATCAACAA AGATTGTCCG	4020
GTAGAAGCAT TCATTTTATC TGAAAAAGGC AGAGGTTTCA AATTAAATCC AAGAAGTTCC	4080
CTCGTGACG TTGATGGGAA TTTTACAGAG GCTTTTGATC CTGAAGTAAG GCGTGAAAAA	4140
TTACTAGAAC GTCTCTGTT GACTGCTCCT AAGCCACATT CTATTTATGA TTTAGGAGAG	4200
GAATCTACG TAAGCGAGTC AGTAGTACTA AAAGATCGTC AGATATTACA AGAGAGTCTA	4260
GCAATTTATG GGTTAGATTT AAAAATGAGA CAACGAAAGC TTTTATTGA TGGGGATGAG	4320
GCTCAAATTC GTTCAGCCAT TCTAAATCTA CTGCCAATGT TTAATCAGTT GGATTTAGAG	4380
CAAATTACAC AGAATAAGGT TCAGCCTCTT GACGGAGAAC TTGCTCACTT TTGTTTGGGA	4440
TTACTGATTA CACTTGAGAG AGAATTGGGG GTAAACATTC CCTATCCATA TAATATAAAT	4500

448

ATTTTCTCTC	ACCTGTATAT	TTTATCAGT	AGGAATCGTC	GTAAGTACTAG	TATTCATGTT	4560
GTAGCACCTT	CAAAACCTAC	TATTGTTGAT	GAGAAAATTT	ACAGTGTCTG	TCAAAAAATT	4620
ATTCAAGAAA	TTGAACAATA	TTTtaggatg	AAGGTTGATG	CAGTTGAGAT	TGACTATCTT	4680
TATCAATACG	TGTATCTTC	GAGATTGCAA	AAACCATTTT	CTTCCGGGAA	GCTTCCTTTT	4740
TCTCAGCGAG	TTTtagatgt	CACTCATTAC	TATTTTAGCC	GTATGTGTAT	GGACAATAGA	4800
GAGATTGAAA	CGACAGATCC	TGACTTTGTT	GACTTGGCGA	GTCATATCAG	TCCCTTACTG	4860
AGGAGATTAG	ATAATAGAGT	ACAGATTAAG	AATAGTCTTT	TATCACAAT	TCTTTTAACC	4920
TATCCTAATC	TGGTTAAAGA	GTTAACAAC	ATTTCTAAAG	AAGTGAGTCT	AGTATTTGGT	4980
TTTGCTTCCT	TGAGTCTGGA	CGAGATTGGT	TTTCTAGTCT	TATATTTTGC	ACGGTTTCAA	5040
GAAAAGCGAG	CACGTCCTCT	AAAAACAGTA	GTGATGTGTA	CATCAGGTGT	CGGAACCTCA	5100
GAGCTTTTAC	GAGCACGATT	AGAAAAGCAA	TTTCTGAAT	TGGATATTAT	TGATGTAGTT	5160
GCTTATCATC	AATTAGATGA	GCTGATAAAT	CTATATCCAG	ATTTAGATTT	CATTGTGACG	5220
ACGGTAGCTT	TGCAGGAACC	AGCAAGTGTC	CCGTTTGTC	TAGTTAGTGT	TTTCTAACC	5280
GAGGGTGATA	AACAACGTCT	TCAAGCAAAA	ATTCAGGAGA	TAAACTATGA	ATAATCTTTC	5340
GCTTGTCCTT	ATGGATATAT	CTGTTCAAAA	TCGTCAAGAA	GCCTACAAAG	AATTAGCAAA	5400
TCAAATCAGC	CTTCTTGTTT	CTGAAGATAC	AGAAAAATA	GAAGAGCTTC	TATATTACCG	5460
TGAGAGACAG	GGAAGTATAG	AGGTTGCTAA	AGGTGTTCTT	CTACCACATT	GTGAAGGAAA	5520
CTTTCAACAT	CATGCTTAG	TGATTACTAG	ATTAAAATCA	CCTATCAGAG	AATGGTCGAA	5580
GGATATCCAG	TGTGTTGACC	TTATTATCGG	TTTGGCCATT	GCAGTATCAC	AGGACAAGTC	5640
ATGTATTAAA	ACATTGATGA	GAAGACTAGC	AGATGAATCA	TTCATAAATC	AATTAAAACA	5700
GTTAACAAAA	GAAGAATTAC	GGGAGATAAT	ATATGGAAAT	CAAAGATATT	CTTAATGTGA	5760
GTCTGATCCA	GACGGATTTA	CAGATGCAGA	GCAAAGAAGA	GGTTTTTGAG	GCATTAGCTC	5820
AACTATTGGT	TGAGACGGGT	TATGTGTCTG	ATAGAGACCA	ATTTATCGAA	GGTCTTTATC	5880
AGAGAGAGGC	AGAAGGACAG	ACCGGTATTG	GGAATTATAT	TGCTATTCCC	CATAGCAAGA	5940
GTTCTGCTGT	GGAGAAGGCG	GGGGTAGTCA	TAGCTATAAA	TCACAATGAG	ATTCCTTGGG	6000
AGACCATTGA	TGGGAAAGGG	GTCAAAGTAA	TTGTACTCTT	TGCAGTTGGT	GATGATACAG	6060
AAGCTGCTAG	GGAGCATTTG	AAGACCTTAT	CACTCTTTGC	TCGAAAACTT	GGTAATGACG	6120
AAGTTGTTGC	CAAATTAGTT	CGGGCTCAGA	CATCTGATGA	TGTGATTGCA	GCTTTTGT	6180
AATAAGAAAA	AATTTTGAG	GGTATCCGTA	TGAAAATTGT	TGGTGTGCA	GCTTGACTG	6240
TGGGAATTGC	CCACACTTAT	ATTGCACAGG	AAAAATTAGA	GAATGCCGCA	AAGGTAGCTG	6300

449

GACATGTGAT TCATGTTGAG ACTCAGGGGA CAATAGGGGT AGAAAATGAA TTGAGTCAAG	6360
AGCAGATTGA TGCAGCGGAT GTAGTTATTT TAGCAGTTGA TGTAAAGATT TCTGGTATGG	6420
AACGCTTTGA GGGTAAAAAG ATTATCAAGG TTCCAACAGA AGTGGCAGTC AAATCTCCCA	6480
ATAAACTGAT TGCTAAAGCT GTTGAGATTG TTACGAAATA ACTGAAAATA TTAAAGGAGA	6540
AAATATATGT TGAAACACTT AAACCTAAAA GGTCACTTAT TGACAGCCAT TTCCTATATG	6600
ATTCCAATTG TTTGTGGTGC AGGATTCTTA GTTGCCATTG GTTTAGCAAT GGGGGGTGGT	6660
GTTCTGTACG CTCTGTAGC AGGAAAATTC ACTATCTGGG ATGCTTTAGC AACTATGGGT	6720
GGTAAAGCCC TTGGTCTCTT GCCAGTTGTT ATTGCTACAG GTTTGTCTTA CTCGATTGCT	6780
GGTAAGCCAG GGATTGCACC AGGTTTGTGT GTTGGTCTAA TTGCCAATTC TGTGGTTCA	6840
GGGTTTATCG GTGGTATCTT GGGAGGTTAT ATAGCTGGTT TCTTGGTTCA AGCGATTATT	6900
AAAAAGGTCA AAGTACCAA CTGGATTAAA GGTTAATGC CAACCTTGAT TATTCCTTTT	6960
GTAGCCTCTT TGGTAAGTAG TTTGATTATG ATTTATATTA TTGGAGCGCC TATCGCAGCC	7020
TTTACCAACT GGTGTACGAG CTTATTACAA AGCTTGGGAA GTGCTTCAAA TGGTTTGATG	7080
GGGGCAGTTA TTGGAATTCT CAGTGCTGTT GACTTTGGTG GCCCACTTAA TAAACAGTC	7140
TATGCGTTTG TGTTGACTTT ACAGGCTGAA GGTGTGAAAG AACCATTGAC TGCTTTACAA	7200
TTGGTGAATA CTGTACACC AGTTGGATTT GGATTGGCCT ATTTTATCGC GAAATTACTC	7260
AAAAAAATA TCTATACTCA AGAGGAAATC GAAACATTGA AATCGGCTGT TCCTATGGGG	7320
ATTGTCAATA TTGTTGAAGG TGTAATTCCG ATTGTTATGA ATAACCTGGT TCCAGGTCTC	7380
ATTGCAACAG GTATCGGTGG TGCTGTTGGT GGTGCTGTTT CTTTGACAAT GGGTGCTGAT	7440
TCTGCTGTGC CATTGGTGG AGTGCTTATG TTACCAACCA TGACTCGTCC AGTAGCTGGT	7500
ATTTGTGCCT TGTTAGCTAA CATTGTAGTC ACAGGACTTG TCTACGCGAT TTTGAAAAA	7560
CCAATAAAAC ATGCAGAACC AGTTATGACT GTTGAAGAAG AGATTGATTT GTCAGATATT	7620
GAAATTTTGT AAGAGGGTAA CGATGTCAAG AATTGAATTT TCACCATCTT TGATGACCAT	7680
GGATTGTGAC AAATTCAAAAG AGCAGATTAC TTTTGTGAAT GATAAAGTAG CATCTTATCA	7740
TATCGATATT ATGGATGGCC ATTTGTGTTCC CAATATTACC TTGTCTCCTT GGTTCATTCA	7800
AGAAGTTCAA AAAATTAGTG ACACACCTTT ATCAGTTCAT CTGATGGTCA CAGACCCAAC	7860
CTTTTGGGTA GATCAAGTTC TCGATTTACA ATGTGAGTAT ATTTGTATTG ATGCTGAAGT	7920
TCTGAATGGT CTTGCTTTTC GTTTGATTGA TAAAATTCAT GATGCAGGTC TAAAGGCTGG	7980
TGTTGTCCTT AATCCTGAAA CACCTGTTTC TACAATCTTT CCCTACATTG ATTTACTTGA	8040

450

CAAAGCAACT ATTATGACTG TAGATCCAGG TTTTGCAGGA CAACGCTTTT TGGAGTCTAC	8100
CTTGATATAAA ATCCAAGAAC TCCGTCAGCT TAGAGTTCAG AATGGTTATC ACTACATCAT	8160
TGAGATGGAT GGTCTTCGA GTCGTAAGAC TTTCAAACAA ATTGATGTGG CAGGACCAGA	8220
TATTTATGTT ATAGGTCGCA GTGGATTATT TGGTTTGGAT GACGATATTG CCAAAGCCTG	8280
GGATATCTGT TCTAGAGATT ACGAAGAAAT GACCGGAAAA ACAATGCCAA TCAATAATG	8340
GTTTGAGAAG AAATTTATTA GTTAGGAGGA ATATATGTCA CTACAATCAG TTAACGCCAT	8400
TCGTTTTCTT GCGGTAGATG CTATTAACAA ATCTAATTCT GGTCACCCGG GAATTGTCAT	8460
GGGTGCTGCG CCAATGGCTT ATAGCCTATT TACAAAGCAC CTTAGAATTA CACCTGAGCA	8520
GCCAAACTGG ATTAACCGAG ATCGCTTTAT CTTGTCTGCG GGTCAATGGAT CAATGCTACT	8580
GTATGCTCTC TTGCATTAA CAGGGTATAA GGATGTATCC ATGGACGAGA TAAAAAATT	8640
CCGGCAATGG GGATCTAAGA CACCTGGTCA TCCTGAAGTG ACGCATACGT CTGGTGTGGA	8700
TGCGACATCT GGTCCGCTTG GTCAGGGGAT TTCTACTGCC GTTGGTTTCG CCCAAGCAGA	8760
GCGTTTTTTA GCTGCTAAGT ACAACAAAGA TGTTTCCCT ATTTTGACC ATTATACTTA	8820
TGTTATCGCT GGAGACGGTG ACTTCATGGA AGGAGTGTCT GCGGAGGCGG CTTCTTATGC	8880
AGGTCATCAA GCTTTAGATA AGCTTATCGT CCTCTACGAC TCCAACGACA TCTGCTTGA	8940
TGGTGAGACC AAAGATACTT TCTCTGAAAA TGTTCCGCTC CGTTACGATG CTTATGGTTG	9000
GCATACAGTT CTGGTAGAAG ATGGAACAGA TTTAGCAGCA ATTTCTACAG CAATTGAGAC	9060
GGCCAAGTTT TCTGGTAAAC CGAGTTTGAT TGAAGTAAA ACGGTAATTG GTTACGGCTC	9120
ACCCAATAAA AGTGGTACAA ATGCTGTTCA TGGTGCACCA CTAGGAGCAG AAGAAACAGG	9180
AGCAACTCGT AAGTTTTTGG GATGGGATTA CGATCCATTT GAAGTACCAG AGGAAGTATA	9240
TTCTGATTTT AAGACAAATG TAGCGGATCG TGCTCAGGAG GCATACGATG CTTGGGCTAG	9300
TTTGGTGTCT GATTACAAGG TTGCTTATCC CGAAGTTGCT AGTGAGATTG ACGCTATTGT	9360
AGCTGGAAAA TCCCCTGTAA CCATTACTGA AAAAGACTTC CCTGTCTATG AGAATGGCTT	9420
CTCTCAAGCA ACTCGTAATT CGTCCCAAGA TGCTATTAAT ACAGCAGCAG TTTTACCAAC	9480
CTTCTTAGGT GGATCGGCAG ACTTAGCTCA CTCTAACATG ACCTACATCA AGGCAGATGG	9540
CTTACAAGAT AAATATAATC CATTAAACCG CAATATTCAG TTTGGGGTAC GTGAATTTGC	9600
CATGGGAACA ATCCTCAATG GAATGGCTCT TCATGGTGGT TTACGAGTTT ATGGCGGAAC	9660
CTTCTTTGTT TTCTCTGACT ACGTCAAAGC TGCTATTGCG CTATCAGCCA TTCAGGAGTT	9720
GCCTGTAACT TATGCTTTTA CCCATGATTC AATTGCCGTT GGTGAAGATG GTCCAACCTA	9780
TGAACCAGTT GAACATTTGG CAGGTTTACG CTCAATGCCA AACTTGACTG TTATCCGTCC	9840

451

AGCGGATGCC CGTGAAACTC AAGCGGCTTG GCATCATGCC TTGACCAGTA CCACCACTCC	9900
AACTGTCATT GTCTTAACCC GTCAAACTT GGTAGTTGAA GAAGGGACAG ACTTTGGTAA	9960
GGTCGCTAAA GGAGCCTACG TCGTGTATGA TACCCCGGGA TTTGATACTA TTATCATTCG	10020
TACAGGATCT GAGGTCAATC TAGCTATCAA AGCTGCTAAG GAATTGGTTT TACAAGGTGG	10080
TAAAGTACGT GTGGTATCTA TGCCCTCAAC CGAACTATTT GATGCTCAAG ATGCTACCTA	10140
CAAGGAAGAC ATTTTACCAT CTAAGACTCG TCGTCGTGTG GCCATTGAAA TGGCAGCGAC	10200
CCAAAGTTGG TACAAGTATG TTGGTTTGGG TGGCGCGGTC ATCGGTATTG ACATCTTCGG	10260
TGCGTCTGCC CCAGCTCAGA CTGTGATTGA TAATTATGGA TTTACGGTAG AGAATATCGT	10320
TGCTCAAGTT AAGTCCCTAT AGAAACCAAT TACAATGAAG ATACAGCTGT TGTGAGACTA	10380
GCAGATGTAG TGATAGACAC TAATCAGATG ATTGGTTATT TAAAACTGT AATGAAAATG	10440
TAATAATTTA TCTACGAAAG TTATAGTAGA TAGTATACAC AATAGAGTAT ACCCTGAAAC	10500
GTTTGCGAAG TACGCTAATC ACTTTGCTAC TGATCTAGAT AGTTTCTTTA ATCAATAAAC	10560
ACAGCATCCA CAGATTGACT TAGGATATTG TAAGTTTTTT GAAAGCTAGA GAGAAGTCT	10620
CTAAATTA AAAACGCATA GTATAGGATG TTGAAATGAT GAACTGCACC CAAAAGTTA	10680
GACAGAAAAA AATCTAACTT TTGGGGTGT TTTATTATGA AATTAACCTA TGATGATAAA	10740
GTTCAGTTCT ATGAACTTAG AAAACAAGGA TATATCTTAG AGAAGCTTTC AAATAAATTT	10800
GGGATAAATA ATTCTAATCT TAGGTACATG ATTAAATTGA TTGATCGTTA CGGAATAGAG	10860
TTCTGCTAAA AAGGGAAAAA TCGTTACTAT TCTCCTGATT TAAAACAAGA AATGATTTCAT	10920
AAAGTCTGAC ATGAAGGCTG GACTAAAGAT AGAGTTTCTC TTGAATACGG TCTCCCAAGT	10980
CGTACGATAC TTCTTAACTG GCTAGCACAA TACAGGAAAA ACGGGTATAC TATTGTTGAG	11040
AAAACAAAAG GGAGAGTACC TGAGAGCGGA GAATGCCATC CTAAAAAAGT TAAGAGAACT	11100
CCGATTGAAG GAGGAAAAAG AGAAATAAGA AAGACAGAAA TTGTTCAAGA ATTAATGACT	11160
GAGTTTTCGT TAGATCTTCT TCTAAAAGCC ATTAACTAG CTCGTTGGAC CTACTACTAT	11220
CACTTGAAAC AGCTAGATAA ACCAGATAAG GACCAAGAGC TTAAAGCTGA AATTCATCC	11280
ATCTTTATCG AACACAAGGG AGATTATGCT TATCGCCGGG TTCATTAGA ACTAAGAAAT	11340
CGTGCTTATC TGGTAAATCA TAAAAGAGTT CAAGGCTTGA TGAAAGTACT CAATTTACAA	11400
GCTAGAATGC GACAGnAACG AAAATATTCT TCTCATAAAG GAG	11443

(2) INFORMATION FOR SEQ ID NO: 50:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5338 base pairs

452

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 50:

CCAATTACAT TATATTATCA AAATCGTCGA AACTGGCTCC ATGAATGAGG CAGCCAAGCA	60
ACTCTTTATC ACTCAGCCAA GTCTCTCCAA TGCAGTGCGA GATTTGGAAG ATGAAATGGG	120
CATTGAGATC TTTATCCGCA ATCCCAAGGG AATCACCTTG ACCCGTGATG GCATGGAGTT	180
TCTCTCTTAT GCCCGTCAGG TTGTCGAGCA GACCCAGCTT CTGGAGGAAC GCTATAAAAA	240
TCCTGTCGCC CACCGCGAAC TCTTTAGCGT TTCGTCTCAA CACTATGCCT TTGTGGTCAA	300
TGCCTTTGTC TCTTTGCTCA AGAAAAGCGA TATGGAGAAA TACGAACCTT TCCTTCGTGA	360
AACTCGGACT TGGGAGATTA TCGACGACGT CAAGAAGCTT CGCAGTGAGG TCGGGGTCCT	420
CTTCTTAAAC AGTTACAACC GTGATGTTTT AACCAAGATG CTGGATGACA ATCACCTGCT	480
AGCCCACCAT CTCTTCACAG CGCAACCGCA TATCTTTGTC AGCAAGACCA ACCCTCTGGC	540
AAAGAAAGAC AAGGTGAAC TGTCTGATTT GGAGAATTC CCTTACCTCA GCTATGACCA	600
AGGGACGCAC AACTCCTTCT ACTTTTCAGA AGAGATTCTT TCTCAAGAAC ACCACAAGAA	660
ATCCATTGTG GTCAGTGACC GTGCCACCCT CTTAATCTC TTGATTGGTT TGGATGGTTA	720
TACCATTGCG ACAGGGATT TGAACAGCAA CCTAAACGGA GACAATATCG TTTCTATCCC	780
ACTGGATATT GATGACCCGA TCGAGCTGGT CTATATCCAG CATGAGAAAA CCAGCCTATC	840
TAAGATGGGC GAACGCTTTA TAGACTATCT CCTAGAAGAA GTTCAGTTTG ATAGTTGAGA	900
AATGATAAGA ACCAATATGT AGGCTAGCAA CAACCTGCAC ATTGGTTCTT TTTACTTATA	960
ATTAAAAGTT TCCCCTGCCA ACTTATCAGC TAGCTTGGGA AAGAGAGTAT AAAACTTATG	1020
GGCTAGGTTT AACAAAATCG GGAGATTGAG TTCTCGTTTG TTTTTCCTA TAATCTTGAC	1080
AATCTTTTTA GCCACTGCAT CTGGTTCTAG CAGGAAGCGA TCAACCGATT TAAGATAAGT	1140
TCCATCTGGG TCGGCTTGGT CGAAAAATCC TGTACGGATT GGTCTGGAT TGACTGTTGT	1200
CACATAGACT CCATAGGCA TAAGTTCGAG TCGCAGAGCA TTTGAAAAAC CAATAGCCGC	1260
AACTTGGTC GCTGAGTAAA GACTAGACTT GCCAGTAGCT ATTAGACCTG CCATGCTGAC	1320
GATGTTGATG ATATGCCCTT TGCTGCTTTC CTTCATACGA GCCGCAAGGT GACGAGACAG	1380
ATTATCAGG GCAAAGGTAT TGACCTCAA CATCTGGTGA ATATCTTTAT CAGCAATCTG	1440
GTCAAATCCC TCAAAAATCC CGTAACCGC GTTGTTAATC AAGACATCAA TCTTGCCATA	1500
GCGGAGATAA AGATCAGTTA CCAGAGCTTC TAGGGCTGAA TCGTCGGTAA TATCAATTC	1560

453

AATCAATTCT GCATGGGAAT AATTTCCGTA GAGTTGGGCT AATTTTTCCT TATTTCTACC	1620
AAGCAAGATG AGTTGGTCAT TGGGCAGGAG TTTGACCATT TCTTGAGCTA GACCACCGCT	1680
AGCTCCGGTA ATGAGAATAG TAGGCATACT TATCCTTTCT GTGACTGCTA GATTTCCACT	1740
TCTTCCAAGT CTTTGACCAC ATGGACATTT TCAAAAATTG TGGCAGCGTC TTTCTTGAGT	1800
TTGCTAATAT CTTTGTAGAG GAAACGGGCA CTGATATGGT TGAGTAGGAG GCGTTTGCA	1860
CCTGCTTCTA CCGCTACTTG TGCAGCTTGC ATATTAGTTG AGTGACCATG GTTACGAGCA	1920
ATTTTTCAT CACCCTTGCC ATAAGTGGAC TCATGAAC TAACATCTGC ATTGACAGCC	1980
AGACGCACAC TGGCAGCGT TTTTCGAGTG TCTCCTAAA TAGTGATAAT CTTACCTGGA	2040
CGTGGCGCTG AGATATAGTC TGCTGCCTTG ATTTCACTTC CGTCTTCCAA AACAGATCC	2100
TGGCCGTTT TGATTTTACC AAAAGCGGG CCGAACGAA CACCAGCAGC CTTGAGTTT	2160
TCAGCATCCA GCGTCCCTTC TAGATCCTTT TGCATGACAC GATAGCCAAC ACAGAAAATA	2220
GTGTGGTCCA GCTCCTCTGC ATACACAGTG AATTTATCGG TTTCAAGAAT TTTACCCAGA	2280
GAATCTTGGT CAAACTCATG GAAATGAATG CGGTAGGGCA GACGAGAACC TGACACACGA	2340
AGGCTGGTTA AGACAAATGA CTTGATTCCT TGAGGTCCGT AGATTTCCTA ATCTGTCTGC	2400
TCTTCATTGG CCTGAAAGGC ACGGCTAGAA AGGAAACCTG GCAAACCAA AATGTGGTCT	2460
CCATGCAGAT GGGTAATAAA GATTTTGCTG ACCTTACGTG GTCGAATTGT GGTTCACAGA	2520
ATGCGATTTT GCGTACCTTC TCCACAGTCA AAGAGCCAAA CTCGTTAAT CTCATCCAAA	2580
AGTTTCAGGG CGAGACTTGA AACGTTGCGG GCTTTAGAGG GCTGACCAGC CCCCCTTCCT	2640
AAAAATTGAA TATCCATTCT ATACTTTCTA ATTAATCAAT ATATAACATG GCTGTGCGGT	2700
TTTCCGATCG GAAATAGCGT TTGCCAGAAA AAGCAGCAGC TTCTTGCAAT AAATCCTCTT	2760
GGCTGTAGCC TTTGAGACGT TTTCGACCAT CAGCCAATCT TTCCAAATCA GTCAAAGCTG	2820
TGAGACTTTC TAGGCTGATA ACTTCCTCGT CCTCGACAGG CTTTATGTAA ATCTTACCAG	2880
ACTCTTCAAA GACTAATTGA TGGGGGAAAA TTTGCGCAAT TTCAAAGAGC AAGTCATCCG	2940
AGATTTTCTC CTCATTTTCA AAGAAAATCC GACCAAGGCC GTCACCTCTA TAACAAAAAC	3000
CAAAGGATTT ACCAGACAGA TTAAGCCGAA TAAAAGGCTT ATTTTCTAGG GTGAAACTTG	3060
GCTCAGTATT GTAAAGATTC AGTTCCTGAC TGAGTTCTGC AAAATAATCC GTCGCAGCCT	3120
GAGGACTCTT TTTCTGATAG AGTTCTGCAA AGTAGGCAT AACAACACTT GGCGGAGGTG	3180
TAATAAGTGT TAACGTCTCC TGATCTGTTT TACCAGCTAG AAGCTGATCC AGATAGACCT	3240
TGTCCAGACT TGTATAACCT CCATACTTTA GAGCCAAAGT TTTAATATCA GTCATAAAAT	3300

454

TCTTCTAACC TCCATTTATT TTTCTCGGAA ATGTAGCCTG TAATCACTTC GCCGTCTTCC	3360
TGATAATCAC GTTCTTCCAG AATTGCAACA CTCTCTAAAT CATGAATCTT GTAGGACTTT	3420
GA AAAAGGCA CTCGCAGGT AAATGCTTCA AAAATTTCTT TAATCTTATC TAGCAATAAT	3480
GCTTGCAAGT TTTCAAGACT GTCCTCAGAC TTGGCAGAAA TGAGGGTATA TGGCGTTTGG	3540
GTAGGCGTGA AATCCTCCAC CAAATCCGCT TTATTATAAA GCGTCAAGTG AGGAATATCT	3600
TCCATGTCCA GGTCTTTCAT GATGGAGAGA ACCGTTTTTT CATGCTCCTC GTGGTAAGGA	3660
TTGCTAGCAT CGATAACATG AACCAGAAGG TCCACATGCT TGCTTTCTTC CAAGGTGAC	3720
TTGAAACTGG ACACCAACTC TGTCGGCAAA TCTTGATAA AGCCAACGGT ATCTGTCAAA	3780
GTTACTTGGA GATTGCCTCC CAGATGAATA CTCTTGGTTG TCGCATCCAG AGTCGCAAAG	3840
AGCTCATCTG CTTCATACTG GGTCTTACTG GTCAAGATGT TCATGATAGT TGATTTCCCA	3900
GCATTAGTAT AACCAATCAA ACCAATCTTA AAAGTGCTAG ACTCCAAACG TTTTCTCTG	3960
ACAGTCGCAC GATTTTCTC AACCACCTTG AGCTGGCGCT CGATATCCGT GATTGATTG	4020
CGAACGCTAC GACGGTTCAG CTCCAGCTGG CTTTCACCAG GACCACGGGA ACCAATTCCC	4080
CCTGCTGAC GGCTGAGCAT AATCCCCGA CCAACCAAGC GAGGCAAAAG GTATTTGAGT	4140
TGGGCTAGGT GGACTTGGAG CTTCCTTCA TGGCTTCGAG CCCGCATGGC AAAGATATCC	4200
AAAACTCACT GCATACGGTC AATGACCTTA ACACCGAGAA CTTCCCTCTAG ATTGACATTC	4260
TGCTTGGGG TCAGACGATT GTTGACGATG ACAGTAGTGA TTTCTTCTGC ATCCACCATA	4320
AGCGCAATCT CTTCCAACCT ACCAGAGCCG ACGAAGGTCT TGGAAATCATA TTTTTCACGT	4380
TTTGTCTGT AGCTATCTAC AACGACTGCC CTTGCCGTTT TCGCTAAACT AGCCAATTCT	4440
TCCATGGAGA GGTCAAACT GTCCATACCC TGCAATTCCA CACCAATCAG CAGGACTCGC	4500
TCCTCTTTT TCTCCGTTTC AATCATCTAA AAACCTCTCT ATCTGGCTTA AAATGCGGTC	4560
TTGTACACCA GATTCTCAA TCTGATAAAA GTTGACCTGC ATGCGATTAC GGAACCAGGT	4620
CAGCTGACGC TTGGCAAAAC GACGAGTCGC CTGTTTAAGA CTCTCACTAG CTTCTCTCAA	4680
GGTCTGCTCT CCACGGAAAT AAGGAAAGAG TTCCTTATAG CCAATTCCTT TAGCAGCCTG	4740
TACATTAGGG GAATGGTCAA ACAGCCACTT GGCTCATCC AAAAGCCCAG CCTCAAACAT	4800
CAATCCACT CGGTGGTTGA TACGCTCATA AAGTTGACTA CGTTCATCAT CCAAGCAGAT	4860
AATCAGCGGT TCATACAAGG TCTCTTGATT TTCCAAATCC TGACCAAAAT GGGCAATTTT	4920
TAAGGCACGC ATAGCACGAC GACGATTAAA CTGGGGAATC TCAAGGCCTG CTGATCCAC	4980
CAATGGGCT AATTCCTCAT CTGAATATGG CTCCAAACTA GCTCGATAAG CTAAATCTC	5040
CTCATGAGGA GTCTCCCCAC CTAGGTGGTA ACCTTCTAGC AAGCTCTGGA TATAAAGTCC	5100

455

AGTCCCACCG GCGATAATGG CTAGCTTGCC ACGGTTGTGA ATACCCTCAA TAGTCATCTT	5160
AGCTTCTGAA ACAAAATCAA AAGCCGAGTA AGACTCGGTT ATCTCTCTAA CATCGATTAA	5220
ATGATGAGGA ACAGCTGCCT GCTCTTCTGG ACTAGCCTTG GCCGTCCCAA TATCAAGTCC	5280
TCGATAGACT TGCTGGCTAT CTCCACTAAC CACTTCGCCA TTAAAACGCT TTGCGGGG	5338

(2) INFORMATION FOR SEQ ID NO: 51:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19446 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 51:

CGGAAACCCA TCTAGTCTCC ATCGTTGGG AGACCAAGCA ACACGAATCT TAGATGCTTC	60
TCGCCAACAG ATTGCAGATT TAATCGGTAA GAAAAGCGAT GAAATCTTCT TTACCTCGGG	120
TGGAACAGAA GGGGATAACT GGCTTATCAA GGGTGTGGCC TTGAAAAAG CTCAGTTTGG	180
CAAGCACATC ATTGTTTTCAG CCATTGAACA TCCAGCAGTC AAAGAGTCAG CCCTCTGGTT	240
GAAAAGTCAA GGATTTGAAG TGGATTTTGC TCCAGTTGAT AAGAAAGGCT TGGTCGATGT	300
TGAGGCGTTA CAGTTTGTAT ACGGCATGAT ACAATCCTCG TTTCCATCAT GGCTGTGAAC	360
AATGAAATCG GCTCTATCCA ACCTATTGAG GCTATTTTCAG AATTCTTGGC AGACAAGCCG	420
ACTATTTTCT TCCACGTTGA TGCGGTTTCAG GCGCTTGCCA AAATTCCGAC TGAAAAGTAT	480
CTGACAGAAC GGGTGGATTG CGCGACTTTC TCTAGTCACA AGTTCCACGG GGTTCGAGGT	540
GTTGGCTTTG TCTATATCAA ATCTGGCAAG AAGATTACAC CTCTTCTTAC AGGTGGTGGC	600
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456

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457

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458

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460

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461

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462

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463

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GTTAGAAAAA GTAGCCAAAC TCTTGCCGTT AAAGTAGTGG TAGTCATTAT CCTCCGGAAT	14520
AAGACCATCA CTAACAAGTT GGTGATAAG AGTATTTCTT TTTTGGTGC GAGTATTGAG	14580
TAACGTATAG AGATTTTCAA TCAAGTCACC ATATATAATG GGAAATCCAG TTTCTTTACG	14640
AAAAACGTCA CTATCTTCGA AGTCAACCAA ATAAGAAAAG CCTAAAAGTT GAAAAGCAAC	14700
AGTATAAAAA ATATCTGCTG TCAGTTCATC TTCTGATTGA AAAAATGTCA GCAGGTCTGT	14760
TTTTTTATCA GCTGCTAGGA TAGAAAGTGG GTAGTTGGTG TCTTGATAAG TGAAAAAGAA	14820
ACGACGTAAA AAGGTTTCAA GTGAGTCTTT GTGATTGGCT GTATTTTGTA AATCAAAGCC	14880
ACATTTTTTT AGTTCAGATA AGACATTTTC TTTTGAAAA TTGATATAAC TATATTGATT	14940
AAAACGCATA GAACCTCCAT ATAGAAATGAC AGTTAAGGTT ATTATATCAA AAAAAAGCA	15000
GAAAGGGAAT TGTTAACTTC AAAAGGAAAT AATCCAATAA AAATGAATAA AGTACTAAAT	15060
TCAATATAGA GAACAGAGTA ACAATAAGAA TAAATAGATA GGGTATAAAA GTTCTAGGAG	15120
ATTTATATTA TATGCTTTCT ATTTTATAT ACAATATAGT ATAAATATAA AAATGATGAC	15180
AAAAATACAA ATGAATAGAA AATAAATTAG TAAGCTGATG AAATTTTCT CAAGAGAAGC	15240
CATTTATAGG TGAAAATGCT ATAATATAGT GAGAAGGATA GAGGAGAAGT GTAAATTGAT	15300

464

CGCACAACTA	GATACAAAAA	CAGTCTATAG	TTTTATGGAA	AGCGTCATTT	CGATCGAAAA	15360
GTATGTGAGA	GCAGCTAAAG	AATACGGCTA	CACTCATTGG	GCTATGATGG	ATATTGACAA	15420
TCTTTATGGC	GCTTTCGACT	TTCTAGAGAT	TACAAAAAAA	TACGGCATTC	ATCCTTTGCT	15480
AGGGCTTGAA	ATGACAGTGT	TTGTAGATGA	TCAGGGAGTG	AATTTCGCGT	TTTATAGCTCT	15540
ATCTAGTGTC	GGCTATCAGC	AGTTGATGAA	GCTTTCGACA	GCCAAGATGC	AGGGGGAGAA	15600
AACTTGGTCA	GTCCTGTCCC	AGTACCTGGA	GGATATCGCG	GTCATTGTGC	CTTATTTTGA	15660
TAGAGTTGAG	TCGTTAGAAC	TAGGCTGTGA	TTACTATATA	GGGGTTTATC	CAGAAACACT	15720
AGCAAGCGAA	TTTCATCATC	CTATCTTACC	TCTTTATCGG	GTCAACGCTT	TTGAAAGCAG	15780
GGATAGAGAA	GTTCTTCAAG	TTTTAACAGC	GATTAAAGAA	AATCTACCGC	TCAGAGAAGT	15840
TCCCTTGCGT	TCGAGACAAG	ATGTCTTTAT	ATCAGCAAGT	TCTTTAGAGA	AACTATTCCA	15900
AGAGCGTTTT	CCGCAAGCTT	TGGACAATT	AGAAAAGCTT	ATTTTCAGGCA	TTTCTTACGA	15960
CTTGATACT	AGTCTGAAAC	TGCCTCGTTT	TAATCCAGCT	AGACCAGCAG	TAGAGGAGTT	16020
GAGAGAGCGT	GCTGAAGTGG	GGCTTGTTC	GAAGGGGTTG	ACTAGTAAAG	AATATCAAGA	16080
TAGACTAGAC	CAAGAATTGT	CTGTTATTCA	TGATATGGGC	TTTGATGATT	ATTTCTTGTT	16140
TGTTTGGGAT	TTGTTGCCGT	TTGGACAATC	GAATGGCTAT	TATATGGGAA	TGGGAAGGGG	16200
TTCTGCAGTA	GGCAGTTTGG	TTTCTTATGC	CTTAGACATC	ACGGGGATTG	ACCCAGTAGA	16260
GAAAAATCTG	ATTTTTGAAC	GCTTCTTAA	TCGTGAACGC	TATACCATGC	CTGATATTGA	16320
TATTGATATC	CCAGATATTT	ATCGTCCAGA	TTTTATCAGA	TATGTTGGTA	ATAAATATGG	16380
TAGTAAACAT	GCGGCACAAA	TCGTTACTTT	TTCAACCTTT	GGAGCCAAAG	AAGCTCTTCG	16440
AGATGTCTTG	AAACGCTTTG	GTGTGCCAGA	GTATGAATTA	TCTGCAATTA	CTAAGAAAAT	16500
CAGTTTTCGT	GACAATCTTA	AGTCGGCCTA	TGAGGGAAAT	CTCCAGTTTC	GTCAGCAAAT	16560
CAATAGTAAG	TTAGAATACC	AAAAAGCTTT	TGAGATTGCT	TGCAAGATAG	AGGGCTATCC	16620
AAGGCAAACC	TCTGTCCATG	CGGCTGGTGT	TGTAATTAGT	GACCAAGATT	TAACCAACTA	16680
CATTCTCTTA	AAGTATGGTG	ATGAAATGCC	ACTGACTCAG	TATGATGCTC	ATGGAGTTGA	16740
GGCTAGCGGA	CTTTTGAAGA	TGGACTTTCT	GGGACTACGA	AAATTGACCT	TTGTCCAGAA	16800
GATGCAAGAG	TTGCTTGCTG	AAACAGAAGG	TATTCATCTG	AAAATTGAAG	AAATCGATTT	16860
AGAAGACAAA	GAAACGTTAG	CTTTATTTGC	CTCTGGTAAT	ACAAAAGGTA	TCTTTCAATT	16920
TGAGCAACCA	GGTGCCATTC	GTCTGCTTAA	GCGTGTGCAA	CCAGTCTGTT	TTGAAGATGT	16980
CGTCGCGACT	ACTTCTCTAA	ATCGACCGGG	TGCTAGTGAC	TATATCAATA	ATTTTGTGGC	17040
AAGAAAGCAT	GGGCAGGAAG	AAGTGACTGT	TCTGGATCCA	GTACTGGAGG	ATATTTTGGC	17100

465

TCCAACCTAC GGCATAATGC TCTATCAGGA GCAGGTTATG CAGGTTGCCC AGCGACTTGC	17160
CGGATTTAGT CTTGGGAAAG CCGATATTTT GCGTCGGGCT ATGGGGAAAA AGGATGCCTC	17220
TGCCATGCAT GAGATGAGGG CTTCCCTTTAT TCAAGGTTC A TAGAAGCTG GTCATACTGT	17280
GGAAAAAGCA GAGCAGGTCT TTGATGTTAT GGAGAAGTTT GCAGGTTATG GTTTTAACAG	17340
GTCACACGCC TATGCCTACT CAGCCTTGGC CTTCCAGTTG GCTTATTTCA AAACGCATTA	17400
TCCAGCCATT TTTTATCAGG TCATGTTAAA TTCTTCCAAC AGTGATTACT TAATAGATGC	17460
ACTTGAAGCA GGTMTTGAAG TAGCCTCTCT ATCCATCAAC ACCATTCCCT ATCAGATAA	17520
AATTGCCAAC AAGGCCATCT ATCTAGGTTT GAAATCCATT AAAGGAGTCA GTAATGATTT	17580
AGCTCTCTGG ATTATTGAAA ATAGACCTTA TTCTAACATT GAAGATTTTA TAGCTAAATT	17640
ACCTGAGAAT TATCTGAAAC TTCCTCTGCT AGAACCTTTG GTAAAGTTG GTCTTTTCCA	17700
TTCATTTGAA AAAAATCGTC AAAAAGTATT TAATAACTTA GCTAATCTAT TTGAATTTGT	17760
GAAAGAGTTG GGAAGTTTGT TTGGAGATGC TATTTATAGT TGGCAGGAAT CGGAAGATTG	17820
GACGGAACAA GAAAAATTTT ATATGGAACA AGAGCTTTTA GGGATAGGTG TCAGCAAACA	17880
TCCACTACAA GCTATTGCAA GTAAGGCTAT TTACCCGATT ACCCCAATCG GAAATTTGTC	17940
AGAAAATAGC TATGCTATTA TCTTGGTTGA AGTTCAGAAA ATAAAAGTGA TTCGTACCAA	18000
AAAGGGTGAA AATATGGCCT TCTTACAGGC AGATGATAGT AAGAAAAAT TGGATGTCAC	18060
TCTCTTTTCA GACTTATATC GTCAGGTGG ACAGGAAATA AAAGAGGGAG CCTTCTACTA	18120
TGTAAAAGGA AAAATACAAT CACGTGATGG CCGTCTGCAA ATGATTGCAC AAGAAATAAG	18180
AGAAGCAGTT GCTGAACGCT TTTGGATACA GGTGAAAAAT CATGAATCGG ATCAAGAAAT	18240
TTACGCATT TTAGAACAAT TTAAAGGCCC AATCCCAGTC ATCATCCGGT ATGAAGAGGA	18300
ACAGAAAACC ATCGTTTCTC CCCATCATTT TGTAGCTAAA TCCAATGAAT TAGAGGAGAA	18360
ATTGAATGAA ATCGTTATGA AAACGATTTA TCGCTAAAAA TACGAAAAAT AGAAGAATTT	18420
TCAACGTAAA TGTGGTATAA TCAGTAAGAA TGTAAAAGA AAAAGGAGCA TAACCAATAT	18480
GAAACGTATT GCTGTTTGA CTAGTGGTGG AGACGCCCT GGTATGAACG CTGCCATCCG	18540
TGCAGTTGTT CGTCAAGCAA TTTCAGAAGG AATGGAAGTT TTTGGTATCT ATGACGGATA	18600
TGCTGGTATG GTTGCCGGTG AAATTCATCC CCTAGATGCA GCTTCAGTAG GGGACATCAT	18660
TTCTCGTGGT GGTACTTTCC TTCACTCAGC TCGTTACCCA GAGTTCGCTC AACTTGAAGG	18720
GCAACTTAAA GGGATTGAGC AATTGAAAAA ACACGGAATT GAAGGTGTAG TTGTTATCGG	18780
TGGTGACGGA TCTTACCACG GCGCTATGCG TTTGACTGAA CATGGCTTCC CAGCTATTGG	18840

466

TCTTCCAGGT ACAATCGATA ACGATATCGT TGGTACTGAC TTTACAATCG GTTTTGACAC	18900
AGCGGTTACT ACTGCCATGG ACGCTATCGA TAAGATTCGT GATACATCAT CAAGTCACCG	18960
TCGTACTTTT GTAATCGAAG TTATGGGACG TAACGCTGGT GATATCGCTC TTTGGGCTGG	19020
TATTGCAACT GGTGCTGATG AAATCATCAT CCCTGAAGCA GGCTTCAAGA TGGAAGATAT	19080
CGTAGCAAGC ATCAAAGCTG GTTATGAATG TGGTAAAAA CACAATATTA TCGTCTTAGC	19140
TGAAGGTGTG ATGTCAGCGG CTGAATTTGG TCAAAAACCT AAAGAAGCTG GAGATACAAG	19200
CGACCTTCGT GTAACAGAAC TTGGACATAT TCAACGTGGT GGTTCCTCAA CTGCGCGTGA	19260
CCGTGTTTTG CCGTCACGTA TGGGTGCACA TGCTGTTAAA CTTCTTAAAG AAGGTATCGG	19320
TGGTGTTCGG GTTGGTATTC GTAACGAAAA AATGGTTGAA AATCCAATTC TTGGTACTGC	19380
AGAAGAAGGG GCATTGTTTA GCCTTACTGC AGAAGGTAAG ATTGTGGTTA ACAACCCAGC	19440
TACAAA	19446

(2) INFORMATION FOR SEQ ID NO: 52:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 16593 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 52:

TCGTAAATAT GCTCTGTTTT TGGATTTTGT TTCTTAATCT GTTTGGCAAG TGCCTTCATC	60
ATAGAAATAG GACCACACAT ATAGACGGTT GCATGTTCCG GCACTTCTTT TTGTTCAAAA	120
TTAAGATAGC CGTCTTTCGT ACTGTCGATT AGATGGAGTT CAAAATTAGG ATTTTCTGA	180
GCATAGTTAC GGAGTAAATC TAGGTAGACT GCATTTTCAT CTCCACGGAA GCTATAGTAG	240
AAGTGAACCT GTTTATCTAA AATAGGATGT TCACGGATGT AAGAGATGAA GGGGGTGATC	300
CCAATACCTC CAGCAATCCA AACCTGATTT TCTCGTCCTT CTTCTATGAT CATGTGTCCG	360
TAAGCTCTGT CTAGGGTTAC TTTGCTGCCG GCTTGAAGAT TATCATAGAT ATTCTTGGA	420
TGGTCGCCTG AAGTTTTAAC AGTAAAGTAA AGAGTTTGAC CATGACCTCC TGAGATAGAA	480
AAGGGATGCG GAGCACTTTC AAAGCCTTCT TGGAAAATCT TTAGAAAGGC AAATTGTCCT	540
GATTGATAGT TGAAAGGTCT GCTAAGATGG ATTTGAATTT CTCTAGTATC GTGATTTAAG	600
CGTTTGAGAT GGGTAATTTT CCCTAGATAG GGAAGGAAA TCTTTTGATA TAGAAAAATG	660
ATATAAAAC CAGCTAGTAA GCCTAAAAGG GCATAGCTAC CAACAAGAAA ACTTAGAAGA	720
TTAAATGTAA GGAGACGATT GCCCATTATC ATGTAGATGT GAAAGAGTCC TAAATATAG	780

467

GCTAGSTAAA CCAGGCGGTG AATCCATCGC CAAGCTTCGT ATTGGATGTA TTTGCCTAAA	840
TAGGCGACAA GGATGATGCT GGCAAGATA TAGATGGCAA GATTGCCAAA CTGAGCAGCT	900
AAGCGAGAGC CCCACAAACC GCCCATACTA AAGTTATGAA AGATTAGTAG GATGATTGAG	960
AGAAAGGCTG TGAATTTGTG GACGGTGTAG ACCTTCTCCA AACTGTGAAA CCAGCTTTCT	1020
AGTAGTGGGA GACGAGTGGC TAGGATAAAA GTCAGAGATA GGCTTGTTAA AGCTAGTCCT	1080
GGAATCATGA ATTGGGGAGA AGTGTTTCATC CAAGTCAAAA GAGTCAAGAT AAAACTAGCT	1140
ATGATAAAGA GTAGTCCTTT GACTGATTTT ATAGAAAAT CCATTTTCATT TAGATTTGCA	1200
TTTGTGTAA ATAAATTTGT TACATTTTAT CATAGAAAAT GTATGGTGTC AAATTGAGGT	1260
CTATAAATAT CTACTCTCAT CAAAAAATC TCCAATTGAA CTGGAGAGTG GCTGTTTATA	1320
CTCAATGAAA ATCAAAGAGC AACTAGGAA GCTAGCCGCA AGTTGCTCAA AACACTGTTT	1380
TGAGGTTGCA GATAGAGCTG ACGTGGTTG AAGAGATTTT CGAAGAGTGT TATTCCTCAG	1440
CTTGTTGCCA ACGTTTGGCT AGCATATGAG ACAGGCTAGA AATTGCTAGG TTAAAGCTGA	1500
AGTAGATGAG GGCAATCAGG ATGTAAAGAC TGAAGACCTG CTCTGGTTTCG AAATAACGGC	1560
CCATGAGAAT TTGGCTGGCT CCAAAGAGTT CTTGTAGGGC GATAACAGAG TAGAGGAGAC	1620
TGGTATCCTT AATCACGGTA ACAAATGAG AAATGATGGC TGGTAGCATT TTGCGGATGG	1680
CTTGTTGGGAG AATGATGTAG TAGAGGATTT GGGCTGAGGT GAAGCCTTGT GACATTCCTG	1740
CTTCGTA CTG TCCCTTGTCT ACGGCATTGA GACCGCCTCG AATAATCTCA GCCAAGGCTG	1800
CTGATGTAAA GAGAGTAAAG GCTGTAATAC CTGCTGGTGT GGATTTTCATT TTGAACACCA	1860
AAAAGATAGT AAAAATCCAG AGAAGGTTGG GAACGTTGCG CACAACTCG ATATAAATAC	1920
TGGAAATAAT GCGTAAGACA GGATTTTGTG CATTTCTCGT GACAGCTAGC ACCGTACCGA	1980
TGATAGTAGA GAGGATGATG GCAATCAGAG AAATATAGAG GGTCAAGCCA AATCCTTTAA	2040
AGATAAAGAC TAGGTTATCT GGGGTTAAAA CTTCTAAAAT AGATTCCATA GTAACCTCCT	2100
AAAGTGAATA GGCTTTTGTG TTGGCTTGCT CCATCTTGCG ACCAACTGG GCAACAGGGA	2160
AGCATAGAGC AAAGTAGAGA AGAGCAGCAC CTAAAAAGGC TGGTATATAG TTTCCGTTGA	2220
GAGCCGACCA AGACTTAGTC ACAAACATCA AGTCTACTCC AGAGATGATA GCTACAGTAG	2280
AGGTGTTCTT GATGAGGTTA ACAATTTGGT TGCTCAATGG AGGGAGAATG ATGCGGAAGG	2340
CCTGAGGCAA GATAATCAAG CGCATGGCAC TGATATAGGT AAAACCTTGC GACAAGGCGG	2400
CCTCCATCTG ACCACTAGGA ATAGACTGAA TCCCTGAACG AATAACCTCA GCGATATAAG	2460
CGCCGTGATA GAGTCCACG CAGAGAACGG CTGTCCAATA AATTGGAATC ATGATGATAT	2520

468

GGTCACTGAT AAGAGGTAGG CCATAAAAA CAATAACAAA CTGCACCAAG AGGGGAGTAT	2580
TTTGGTAAAA TTCAACAAAG ATGCGAGCTA AAATGCGTAA AATTGGACGT TTACTGGTTG	2640
ACATGGCACC AAAGAAGATG CCCAAAACCA TAGCGAGGAT AAAGGAACCA ACCGCTAGGG	2700
CAAGGGTGAA GAGGAAACCA TTGAAAAATT GTCCAAAATC CTGAAAATAG GCTGTCCAAG	2760
ATGATAAATC TGTTCATGGG TGTCTCCTT AATCTGCAGT ATGGCTAGAT GGTTCGAGCT	2820
TGTAACGGTC ATAAAGTTTC TGCAAACTAC CATCCTTGCT CCATTTAGTA ACCAAGTTAT	2880
CAAGATAGTC GTTGAGCTCT GTATTTGATT TCTTGGTAAC AATACCGTAG TCAGATGGCT	2940
TGAAACTATC ATCTAGTAGT GCTGTCCGTT TACTAGTGTA GCCAGATAGA ATAGAGCGGT	3000
CAACGAAAA GGTATCGATA CGATGAGCGT GCAGGGAAGT AATCAATTCT GGTAGGAAC	3060
CAAGTTCGAC GAATTTAAAC TTCAGACCTT TCTTTTACC CAGTTCAGTA ATCAGGCGTT	3120
GGGTGATAGA ACCTTGGGCG ACTCCGATGG TTTTGCCGTT TAGGTCCTCA ATCTTTTGA	3180
TTTTGGCAGA TTTATTGACC AAAAATCCAG AAGCGTCTGT GTAGTAGGGA CTGGTAAAGT	3240
TCTAGAGTTT TTTGCGTTCG TCCGTGATGG TAAAGGTCGC GATATCCATA TCGACCTGTT	3300
CATTGTCTAG AAGGGGGCCG CGGGTTTGTG CTGTAACCGG CACATAGCGA ATCTTGACCT	3360
TGAGTTCATC AGCTACCATC TTGGCCAAGT CGGTTTCGAT ACCAGAATAA GTACCGGTCT	3420
TGGGATCTTT GTAACCAAAA TTGGGAACGT CTGTGTTGAC ACCGACAACC AGTTCGCCTC	3480
TTTTTTGAAT GTCTGCGATA CTTGTATCAG CCTGGACTGG TTTGGCAGCA GCAAGGCCGA	3540
AAAGGCTAAT CAATAATGCT GATAAAAAGA ATTTTMTTTC ATAGGCGCCT CCTTATTTGA	3600
CTTTGTCACT TTCGTGGTTG ATAATTTTGC TGAGGAATTG TTGGGCACGA GGTTCGCTTG	3660
GATTGTCAAA AAAGTTATCG ACATCTGTCG TATCTACTAA AACTTCTCCG TCGGCCATAA	3720
AGATAATGCG GTCCGCAACC TCTCGAGCAA AGCCCATTTT GTGGGTAACG ATGATCATGT	3780
TCATCCCATC ATGCGCCAGT TTCTGCATAA CTGCTAGAAC ATCTCCGATA GTCTCAGGAT	3840
CAAGAGCAGA TGTTGGTTCA TCAAAGAGGA GGAGTTCCGG ATGCATAGCA AGACCACGAG	3900
CGATGGCGAT CCGCTGTTT TGTCCACCAG ATAGCATGGC GGGATAGGAA TCTTCTTGT	3960
CCCACATATT TACAAATTCC AGATATTTT GGGCGGTTT TTCAGCTTCT TTTTATCAA	4020
TTCTTAGAAC TTCAATGGGT GCAAGCGTTA CGTTTCTTAA CACAGCTTTG TGTGGATAAA	4080
GGTTAAAAATG TTGAAAAACC ATGCCGACTT CCTTGCGAAG AGGTACCAAA TCTTCTGGC	4140
TGGCACCAGC AACTTGGTGC CCATTGACTA GGAGACTTCC TTTGTCAACA GTCTCTAAAC	4200
CATTGATCGT ACGGATAAGA GTGGACTTCC CAGAGCCAGA AGGTCCAAGC AGGACAACAA	4260
CTTGTCCTTT TTCAAACGG AGATTGATGT TGCGGAATGC GTGGTAGTCT CCGTAATATT	4320

469

TTTCGACGTT	TTTAAATTCT	ACTAAAGCCA	TGAGAGATCT	CTATTGTGTT	ATATTTTATA	4380
ACACGGTTCT	ACAATAAAG	AATGTTCTTG	TCAAATCATA	TCTGAAAAA	TCTACTATAG	4440
TGAAATAAGA	ACAGAAAAA	TCGATCGGGA	CAGTCAAATC	GATTTCTAAC	AATATTTTAG	4500
AAGTAGAGGT	GTACTATTCT	AGTTTCAATA	TACTATAAAA	TGTTATAAAA	AAGCAATCTG	4560
GATAGAGAAA	ACGTCTAAAT	CATGTTATAA	TGAAGCAATA	GAATTCCTAG	AAAGAGTGGA	4620
TGTCCTTTTG	ATAACACCTA	CTTATGAATG	GCAGTTTGCC	CTGCAGGTAG	AAGATGCGGA	4680
TTTTACAAAG	ATAGCCAAGA	AGGCTGGACT	GGGTCCTGAG	GTGGCTCGGT	TATTGTTTGA	4740
GAGAGGGATT	CAGAACCAAG	AAAGTCTGAA	GAAGTTTTTA	GAACCTTCCT	TGGAGGACTT	4800
ACATGATGCT	TATCTGCTCC	ATGATATGGA	CAAGGCAGTG	GAGCGGATTC	GTGAGGCTAT	4860
TGAAGAAGGG	GAAAATATTC	TTGTTTATGG	AGACTATGAT	GCGGATGGCA	TGACTTCGGC	4920
TTCTATTGTG	AAGGAAAGTT	TGGAACAAC	TGGTGCTGAG	TGCCGAGTTT	ACCTGCCAAA	4980
TCGTTTTACC	GATGGCTATG	GCCCTAATGC	TAGTGTTTAT	AAATACTTTA	TCGAGCAAGA	5040
AGGGATTTC	TTGATTGTGA	CGGTGGACAA	TGGGTTGCT	GGTCATGAGG	CTATTGCATT	5100
GGCTCAGTCT	ATGGGAGTAG	ATGTCATTGT	GACAGACCAT	CATTCCATGC	CTGAAACCCT	5160
GCCAGATGCT	TATGCTATTG	TCCATCCTGA	ACATCCAGAT	GCGGATTATC	CTTTTAAATA	5220
TTTGCTGGT	TGTGGAGTTG	CTTTCAAGTT	GGCTTGCGCC	CTGTTAGAAG	AAGTGCAAGT	5280
GGAATTGCTT	GATTTGGTCG	CTATTGGAAC	TATTGCAGAT	ATGGTGAGTC	TGACGGATGA	5340
AAATCGTATC	TTAGTTCAAT	ATGGTCTGGA	AATGTTGGGT	CATACCCAGC	GCATTGGTCT	5400
GCAAGAAATG	CTGGACATGG	CTGGGATTGC	TGCCAACGAA	GTAACAGAAG	AAACGGTTGG	5460
TTTCCAGATT	GCTCCTCGTT	TGAATGCCCT	GGGTCGCTTG	GATGATCCCA	ATCCTGCCAT	5520
TGATTTGTG	ACTGGATTTG	ATGATGAGGA	AGCGCATGAG	ATTGCCCTTA	TGATTACCA	5580
GAAAAACGAA	GAGCGCAAGG	AAATCGTTCA	GTCTATCTAT	GAAGAAGCCA	AGACCATCGT	5640
GGATCCTGAG	AAGAAGGTTT	AGGTCTTGGC	CAAGGAAGGC	TGGAATCCTG	GGGTTCTAGG	5700
AATCGTGGCT	GGTCGTTTAT	TGGAAGAATT	GGGACAGACA	GTCAATGTTT	TTAATATAGA	5760
AGACGGTCGT	GCCAAGGGCA	GTGCTCGTAG	TGTGGAAGCG	GTGATATTTT	TTGAAGCTCT	5820
GGATCCCCAT	CGAGACCTCT	TCATCGCCTT	TGGAGGTCAT	GCAGGTGCAG	CGGGTATGAC	5880
GCTGGAAGTT	GAGCAACTCT	CAGATTTATC	TCAGGTTTTG	GAAGATTATG	TTGCTGAAAA	5940
AGGTGCAGAT	GCTGGTGGCA	AGAATAAGTT	AAACCTAGAT	GAAGAGTTGG	ATTGAGAGGC	6000
ACTTAGCTTG	GAAACGGTCA	AAAGTTTTGA	ACGTTTAGCT	CCTTTTGGAA	TGGATAATCA	6060

470

GAAACCTATT TTTTATATCA AGAATTTTCA GGTGCGAAAGT GCTCGTACTA TGGGGGCAGG	6120
TAATGCCCAT CTAAGCTGA AAATTTCCAA GGGTGAGGCG AGTTTGAAG TGGTAGCCTT	6180
TGGTCAAGGC AGATGGGCGA CAGAGTTTTC TCAAACCAAG AATCTAGAGT TAGCGGTAA	6240
ATTGCTCTGC AACCAATGGA ATGGCCAAAC TGCCCTCCAG TTGATGATGG TGGATGCGCG	6300
AGTGAAGGT GTTCAACTTT TTAACATTCG TGGAAAAAAT GCAGTCTTGC CAGAAGGTGT	6360
TCCAGTCTTG GATTTTCTG GAGAACTGCC AAATCTTGC GCTAGTGAAG CTGTGTCTG	6420
AAAAACATT CCAGAGGATA TTAATCAGCT GAAGACCATT TTTCAGGAAC AGCATTTCTC	6480
TGCTGTCTAT TTCAAAAATG ATATTGACAA GGCTTATTAT CTGACAGGTT ATGGGACTAG	6540
AGATCAGTTT GCCAAATTGT ACAAGACTAT TTACCAGTTC CCAGAGTTTG ATATTGCTA	6600
CAAGCTGAAA GATTGGGCTG CATATCTTAA TATTCACAA ATCTTGCTGG TCAAGATGAT	6660
TCAAGTATTT GAAGAACTAG GCTTTGTGAC GATAAAAGAT GGTGTGATGA CAGTCAATAA	6720
AGAGGCGCCA AAGCGGAGA TAGGAGAAAG TCAAATTTAC CAAAATCTCA AACAAACCGT	6780
TAAAGACCAA GAAATGATGG CGCTGGGTAC GGTGCAAGAA ATTTATGATT TTTTGATGGA	6840
AAAAGAGTAG AAGTTAGGAA AGAGTTGGGA AATCAACTCT TTTTGAATA CAGACCTTCA	6900
TTTTGAATA CATCAAAAA ATGGTATAAT GGTAGGAAA GATTCGGCTG AAAGTATCAG	6960
AACTTTTGA ATAAGAGGGT AGAATTGCCC TATAATCAAG ATAACTAAG ATTTGAGAGG	7020
AAAAATGAGT AATATCAGTT TAACAACACT TGGTGGTGTG CGTGAGAATG GAAAAATAT	7080
GTACATTGCT GAAATTGGAG AGTCCATTTT TGTTTGAAT GTAGGTTAA AATATCCTGA	7140
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CGACCGTATT GCTGGGGTTT TCTTGACCCA CGGGCATGCG GATGCCATTG GTGCTCTACC	7260
GTATCTCTTG GCAGAGGCTA AAGTTCCTGT ATTTGGGTCT GAGTTGACCA TTGAGTTGGC	7320
AAAGCTCTTT GTCAAAGGAA ATGATGCCGT TAAGAAATTT AATGATTTC ATGTCATTGA	7380
TGAGAATACG GAGATTGATT TTGGTGGGAC AGTGGPTTCC TTCTTCCCTA CGACTTACTC	7440
CGTTCCAGAG AGTCTGGGAA TTGTCTTGAA GACATCGGAA GGAAGCATCG TTTATACAGG	7500
TGACTTCAAA TTTGACCAA CGGCTAGTGA ATCTTATGCA ACTGATTTTG CTCGTTTGGC	7560
AGAGATTGGT CGTGACGGCG TCCTGGCTCT CCTCAGTGAT TCGGCCAATG CAGACAGCAA	7620
TATTCAGGTG GCTAGTGAAA GTGAAGTTAG GGATGAAATT ACCCAAATA TTGCTGACTG	7680
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TGACGCTGCG GATAAACAG GTCGACGPAT CGTCTTGACA GGATTTGATA TTGAAAATAT	7800
CGTCCGCACA GCGATTCGTC TTAAGAAGTT GTCTTTAGCC AACGAAATTC TTTTGATTAA	7860

471

GCCTAAAGAT ATGTCTCGCT TTGAAGACCA TGAGTTGATT ATTCTTGAGA CAGGTCGTAT	7920
GGGTGAGCCT ATCAATGGAC TTCGTAAGAT GTCGATTGGT CGCCATCGTT ATGTAGAAAT	7980
CAAGGATGGG GACCTAGTCT ATATTGCTAC GGCTCCGTCT ATTGCTAAAG AAGCCTTGT	8040
TGCGCGTGTG GAAATATGA TTTATCAGGC AGGTGGGGTT GTCAAATTGA TTACCCAAAG	8100
TTTACATGTA TCAGGGCACG GAAATGTGCG TGATTTGCAG CTGATGATCA ATCTTTGCA	8160
ACCTAAGTAC CTCTTCCCTG TCCAAGGGGA GTATCGTGAG TTGGATGCTC ACGCTAAGGC	8220
TGCCATGGCA GTTGGGATGT TGCCAGAACG CATCTTCATT CCTAAAAAGG GGACGACCAT	8280
GGCTTACGAG AATGGAGACT TTGTTCCAGC TGGATCGGTT TCAGCAGGAG ATATCTTGAT	8340
TGATGGGAAT GCCATTGGTG ATGTTGAAA TGTGTTCCTT CGTGACCGTA AGGTCTTGTC	8400
AGAGGATGGA ATTTTCATCG TGGCTATTAC AGTCAACCGT CGTGAGAAGA AAATTGTGGC	8460
TAGGGCTCGT GTTCACACGC GTGGATTGT TATCTCAAG AAGAGTCGCG ATATTCTCCG	8520
TGAAAGTTCA GAATTGATTA ACCAAACGGT AGAAGAGTAT CTTCAAGGAG ATGACTTTGA	8580
CTGGGCAGAT CTCAAAGTA AGGTTCTGTA CAATCTGACC AAGTACCTCT TTGATCAAAC	8640
CAAGCTCGC CCAGCCATT TACCAGTAGT CATGGAAGCA AAATAATCGT TGAATAAAC	8700
AGAGAGAAAG TCGAGTTTCG GCTTTTCTT ATAGAAAAAT AGAAGGAGAA AATCATGGCA	8760
GTGATGAAAA TCGAGTATTA CTCACAAGTA TTGGATATGG AGTGGGGGT GAATGTCCTC	8820
TACCCGTGATG CCAATCGAGT GGAAGAACCA GAGTGTGAAG ATATTCCCGT CTTGTACCTT	8880
TTGCACGGGA TGTCTGAAA TCATAATAGT TGGCTTAAGC GGACCAATGT AGAACGCTTG	8940
CTTCGAGGAA CTAATCTCAT CGTTGTTATG CCCAATACCA GCAATGGTTG GTACACCGAT	9000
ACCCAGTATG GTTTTGACTA CTACACGGCT CTAGCAGAGG AATTGCCACA GGTTCGAAA	9060
CGCTTCTTCC CTAATATGAC GAGCAAGCGT GAAAAGACCT TTATCGCTGG TCTTCTATG	9120
GGAGGCTACG GCTGCTTCAA ACTGGCTCTT ACGACAAATC GTTTTCTCA TGCAGCTAGT	9180
TTTTCAGGTG CCCTCAGCTT TCAAACTTT TCTCCTGAAA GTCAAAATCT GGAAGTCCA	9240
GCCTACTGGA GAGGTGTTTT TGGAGAGATT AGAGACTGGA CAACTAGTCC CTATTCTCTT	9300
GAAAGTCTGG CTAAAAATC GGATAAAAG ACCAACTTT GGGCGTGGT TGGCGAACAG	9360
GATTTCTTGT ACGAAGCCAA TAATCTCGCA GTGAAAAATC TCAAAAACT AGGTTTGAT	9420
GTGACCTATA GCCATAGCGC TGGAACCTAC GAGTGGTACT ACTGGGAAA ACAATTGGAA	9480
GTTTTTTTAA CAACCTACC AATTGATTTC AAATTAGAAG AGAGACTGAC TTAGTTTGAA	9540
CTTCAGCATA GGGGAGTAG AACTAAAATA AAATATGTTT TCACTAGACT TTTCAAACGm	9600

472

AAGTAGTAGA ATAGTAATAA AATACTGGAG GAAAGAGAGT AGGAAATGTA CCGTTATCAA	9660
ATTGGCATTTC CCACATTAGA ATATGATCAG TTTGTCAAAG AACATGAATT AGCCAATGTA	9720
TTACAAAGTA GTGCTTGGGA GGAAGTTAAG TCTAATTGGC AACATGAGAA GTTTGGTGTT	9780
TACAGGGAAG AAAAATTACT GGCACAGCT AGTATTTGA TTAGAACTCT TCCGCTAGGC	9840
TATAAAATGT TTTACATCCC AAGAGGACCT ATATTGGATT ATGGGGATAA AGAACTCTTG	9900
AATTTTGCCA TTCAGTCTAT TAAGTCCTAT GCTCGCAGTA AGAGAGCGGT TTTTGTGACT	9960
TTTGACCCAA GTATTTGCCT ATCTCAAAGT TTAATCAATC AGGAAAAGAC AGAATTTCTT	10020
GAAATCTGG CTATTATTGA TAGTTTGCAA CAAATGGGAG TAAGGTGGTC AGGAAAAACG	10080
GAGGAAATGG GAGACACCAT TCAACCTCGT ATTCAGGCGA AAATATACAA GGAAATTTT	10140
GAAGAAGATA AACTTTCCAA GTCAACAAA CAGGCTATTTC GAACAGCACG AAACAAAGGG	10200
CTTGAGATTTC AATATGGTGG ACTGGAACATA TTAGATTTCAT TTTTCGGAGTT GATGAAAAA	10260
ACTGAGAAGC GAAAAGAGAT TCATTTGAGG AATGAAGCCT ATTATAAAAA ATTGTTAGAT	10320
AATTTTAAGG ACAAGGCCTA TATCACCTTG GCCACCTTGG ATGTTTCTAA ACGTTCGCAA	10380
GAGTTAGAAG AACAGTTAGC GAAAATAGA GCCTTGGAAG AGACCTTTAC TGAGTCGACT	10440
CGAACTTCAA AAGTAGAAGC GCAGAAGAAG GAAAAGAAGC GTTTGTTAGA GGAATTGACC	10500
TTCTTGCAAG AATATATAGA TGTAGGTCAA GCGAGAGTTC CTTTAGCGGC TACTTTGAGT	10560
TTGGAATTTG GTACTACCTC TGTCATATA TATGCTGGTA TGGATGATGA TTTTAAACGT	10620
TACAATGCAC CAATTTTAAC TTGGTATGAA ACGGCTCGCT ATGCCTTTGA ACGAGGTATG	10680
ATCTGGCAAA ATTTAGGTGG TGTTGAAAAC TCTCTCAATG GTGGACTTTA TCATTTTAAG	10740
GAAAAATTTA ATCCAACGAT TGAAGAATAC TTGGGTGAAT TTACAATGCC CACTCATCCT	10800
CTCTATCCTC TGTTAAGACT TGCTCTTGAT TTCCGTAAAA CATTAAGAAA AAAACATAGA	10860
AAGTAAGTAT ATGGCACTAA CAACACTCAC GAAAGAAGAG TTTTCAGACTT ATTCTGATCA	10920
GGTTTCTTCT CGTTCCTTTA TGCAATCTGT CCAGATGGGG GATTTGCTAG AAAAAAGAGG	10980
GGCTCGAATT GTTTATCTTG CTTTGAAACA AGAAGGAGAA ATTCAAGTTG CAGCTCTGGT	11040
TTATAGCCTG CCCATGCTGG GTGGTCTGCA TATGGAACCTC AATTCGGGGC CGATTTATAC	11100
CCAACAAGAT GCTCTTCCAG TTTTATATGC AGAGTTAAAA GAATATGCCA AGCAAAATGG	11160
TGTATTAGAG TTGCTTGTA AACCCTATGA AACTTATCAA ACTTTTGATA GCCAAGGTAA	11220
TCCAATAGAT GCTGAGAAAA AAAGTATTAT TCAAGATTG ACTGATTAG GTTATCAATT	11280
TGATGGCTTA ACAACAGGTT ACCCAGGTGG AGAACCAGAT TGGTTATACT ATAAAGATTT	11340
AACTGAATTA ACTGAAAAGA GTTTGCTTAA AAGTTTTCAGT AAAAAGGGTA AACCTTGGT	11400

GAAAAAGGCT GAAACCTTTG GCATTGCGTT GAAAAAGTTA AAACGTGAAG AACTATCGAT	11460
TTTTAAGAAT ATAACAAAAG AAACCTCTGA ACCTAGAGAA TATAGTGATA AAAGTTAGA	11520
ATATTATGAG CATTTTTATG ATACTTTTGG AGAACAAGCG GAGTTTCTCA TAGCAAGCTT	11580
AAATTTTTTCG GACTATATGA GCAAAATTGCA AGGTGAACAA AGTAACTAG AAGAAAACTT	11640
GGACAAGTTG CGACTTGATT TGAGTAAAAA TCCTCATTCT GAGAAAAAAC AAAATCAACT	11700
GAGAGAATAT TCTAGTCAAT TTGAAACGTT TGAAGTTCGA AAAGCAGAAG CGCGAGACTT	11760
GATTGAAAAA TATGGAGAAG AAGATATTGT TTTAGCTGGG AGTTTATTTG TTTATATGCC	11820
TCAGGAAACG ACTTATCTCT TTAGTGGTTC CTACACTGAG TTTAATAAGT TCTATGCCCC	11880
TGCACTGCTT CAAAAATATG TTATGTTGGA AAGCATAAAA CGTGAATAC CTAATACAA	11940
CTTCCTAGGC ATTCAGGGA TTTTGTATGG AAGTGATGGT GTTTTGCCTT TTAACAGAA	12000
TTTTAATGGC TATATTGTAC GCAAAGCAGG TACTTTCCGT TACCATCCAT CGCCTTTAAA	12060
ATACAAAGCT ATCCAGTTAC TCAAAAAAAT AGTAGGACGT TAAGATGAAA AAGTCAGTAT	12120
TTAGATTCTT TTTAGCTTCT TTTAGTAAAA TAATTCCTTAT TTGCTAGAAA GGTGGAGAGA	12180
CATGCGCTGG CTTTTCGTT TGATAGGGGC TTCTTTTCT TTTGTGTGGC GTTTGTTTTG	12240
GCGTCTGGTT TGGATAGTTG TGCTCTTATG TGTGCTTGCT TTCGGACTTC TCTGGTATCT	12300
GAACCGAGAT TTTCAAGGAG CGCTAAAGCA AGCAGAACGG TCAGTAAAAA TTGGTCAACA	12360
AAGTATTGAC CAATGGGAGA AAACAGGGCA ACTGCCTAAG TTAAGCCAGA CAGATAGTCA	12420
CCAGCATTCT GAAGGAAGGT GGGCACAGGC CTCTGCTCGT ATTTACCTGG ATCCGCAGAT	12480
GGATTACGC TTTCAAGAGG CTTATTTAGA AGCAATCCAG AACTGGAATC AAAGTGGTGC	12540
TTTTAACTTT GAACTCGTGA CTGAGTCTAG TAAGGCGGAT ATTACGGCTA CGGAGATGAA	12600
CGACGGAGGC ACTCCTGTGG CAGGAGAGGC GGAAAGTCAA ACTAATCTCT TAACAGGGCA	12660
ATTCTTGTC GTAACGGTGC GGTGAATCA TTATTATTTG TCCAATCCAT ACTATGGCTA	12720
CTCCTATGAA CGCCTTGTC ATACGGCAGA ACATGAGTTA GGTCATGCCA TTGGCTTGGA	12780
CCATACAGAT GAGAAGTCTG TCATGCAACC AGCAGGTTCC TTTTATGGTA TCCAGGAAGA	12840
GGATGTTGCA AACCTCCGAA AAATATATGA GACTAGTGAG TAGGGTACTA TCTTTCCCTA	12900
CTTTTTTTGC TATAATGGAA CTATGAACAA CTTGATTAAA TCAAACTAG AGCTCTTGCC	12960
GACCAGCCCT GGTGCTACA TTCATAAGGA TAAAAATGGC ACCATTATCT ATGTAGGAAA	13020
GGCTAAAAAT CTGCGTAATC GAGTACGGTC CTATTTTCGT GGAAGTCATG ATACCAAGAC	13080
AGAGGCTCTG GTGCTGAAA TTGTGGATTT TGAATTTATT GTTACGGAGT CTAATATTGA	13140

474

GGCACTTCTC CTAGAAATCA ACCTGATCAA GGAAAACAAG CCCAAGTACA ATATCATGCT	13200
CAAGGATGAC AAGTCTATC CTTTCATCAA AATCACC AAT GAGCGCTATC CACGCTTGAT	13260
TATCACTCGT CAGGTCAAAA AGGACGGAGG TCTTTATTTT GGACCCATATC CCGATGTGGG	13320
GGCAGCCAAT GAAATCAAGC GGTGCTGGA TCGGATATTC CCTTTTCGTA AGTGTAACAA	13380
CCCGCCCTCT AAGGTCTGTT TTTATTACCA TATCGGCCAG TGTATGGCCC ACACCATCTG	13440
TAAGAAGGAT GAGGCTTATT TCAAGTCTAT GGCCAGGAG GTGTCTGATT TTCTGAAAGG	13500
TCAGGATGAC AAAATCATCG ATGATCTCAA GAGTAAAATG GCAGTAGCAG CACAAAGTAT	13560
GGAGTTTGAA CGTGC GCGG AATACCGTGA CCTGATTGAG GCTATTGGAA CGCTTCGAAC	13620
CAAGCAACGG GTCATGGCGA AAGATTGCA AAATCGCGAT GTCTTTGGCT ACTATGTGGA	13680
TAAGGGCTGG ATGTGTGTGC AGGTTTCTT TGTCCGTCAG GAAAGCTCAT CGAGCGCGAT	13740
GTCAATCTCT TCCCCTACTT CAATGATCCA GATGAGGATT TTTTGACCTA TGTAGGACAA	13800
TTCTATCAAG AAAAATCTCA TCTAGTTCCC AATGAGGTAC TGATTCCGCA GATATTGACG	13860
AAGAAGCTGT CAAGGCTTTG GTGGATTCCA AGATTCTTAA GCCTCAACGT GGAGAGAAAA	13920
AACAAGTGGT CAATCTAGCC ATAAAAAATG CTCGTGTTAG TCTAGAGCAG AAGTCAATC	13980
TGCTAGAAAA ATCTGTCGAA AAGACTCAAG GAGCTATTGA AAATCTAGGG CGTTTGCTCC	14040
AAATCCCGAC CCCAGTACGT ATCGAGTCCT TCGATAACTC TAATATCATG GGAAGTAGCC	14100
CTGTTTCGGC TATGGTGGTC TTTGTCAACG GTAAACCGAG TAAGAAGGAT TACCGTAAGT	14160
ACAAGATAAA AACGGTTGTT GGACCAGACG ACTATGCCAG CATGAGAGAG GTCATTCCGA	14220
GACGCTATGG TCGAGTACAG CGTGAGGCTT TGAATCTCC AGATTGATT GTGATTGATG	14280
GGGGGCAAGG TCAAGTCAAT ATCGCTAAGC AGGTTATCCA AGAGGAACTG GGCTTGATA	14340
TTCCAATTGC TGGGCTGCAA AAGAATGATA AGCACCAAAC CCATGAATTG CTCTTTGGAG	14400
ATCCGCTTGA GGTGGTGGAT TTGTCTCGCA ATTCTCAGGA ATTTTCTCTC CTCCAACGCA	14460
TCCAAGATGA GGTGCACCGC TTTGCTATCA CTTTCCACCG CCAACTGCGC TCCAAAAATT	14520
CTTTCTCATC TCAATTGGAT GGGATTGACG GTCTGGGACC TAAACGCAAG CAGAATCTTA	14580
TGAAGCATT TCAAGTCTTG ACCAAAATCA AGGAAGCCAG TGTGGATGAG ATTGTCGAAG	14640
TTGGGGTACC TAGAGTCGTT GCAGAGGCTG TGCAAAGAAA GTTGAACCCG CAGGGAGAAG	14700
CCTTGCCTCA AGTAGCAGAA GAAAGAGTAG ATTACCAAAC GGAAGGAAAC CACAATGAAC	14760
CATAAAATCG CAATTTTATC AGATGTTTAT GGCAATGCGA CGGCGCTAGA AGCAGTGATT	14820
GCAGATGCTA AAAATCAAGG GGCCAGTGAA TATTGGCTTC TGGGAGATAT TTTTCTTCCT	14880
GGTCCAGGCG CAAATGACTT AGTCGCCCTG CTAAAGGACC TTCCTATCAC AGCAAGTGTT	14940

475

CGAGGCAATT GGGATGATCG TGTCTTGAG GCTTTAGATG GGCAATATGG CTTAGAAGAC	15000
CCACAGGAAG TTCAGCTCTT GCGTATGACA CAGTATTGA TGGAGCGAAT GGATCCTGCA	15060
ACGATTGTCT GGCTACGAAG CTTGCCTTTG CTGGAAAAGA AAGAAATTGA CGGATTGCGC	15120
TTTTCTATCT CTCATAATTT ACCTGACAAA AACTATGGTG GTGACTTGCT AGTTGAGAAT	15180
GATACAGAGA AATTGACCA ACTGCTAGAT GCGGAAACGG ACGTGGCAGT TTATGGTCAT	15240
GTTCACAAGC AGTTGCTTCG TTATGGAAGT CAAGGGCAAC AAATCATCAA TCCAGGGTCG	15300
ATTGGCATGC CCTATTTTAA TTGGGAGGCG TTAATAAATC ACCGTTCCCA GTATGCCGTG	15360
ATAGAAGTTG AAGATGGGA ATTACTCAAT ATCCAATTTC GTAAAGTTGC TTATGATTAC	15420
GAAGCTGAGT TAGAATTGGC CAAGTCCAAG GGGCTTCCCT TTATCGAAT GTATGAAGAA	15480
CTGCGTCGTG ACGATACTA TCAGGGGCAC AATCTGGAAT TATTAGCCAG CTTAATAGAA	15540
AAGCATGGGT ATGTAGAGGA TGTGAAGAAT TTTTGTGATT TTTTGTAGA GTTTCCTAAA	15600
ATAGCCAATG CAACTAAAA AAGCGATTG CTGGTCCAAT CGCTTTTAGT ATATCTTATA	15660
CTCAATGAAA ATCAAAGAGC AAAC TAGGAA GCTAGCCGTA GGTGCTCAA AGCACAGCTT	15720
TGAGGTTGCA GATAAAGCTG ACGTGGTTTG AAGAGATTTT CGAAGAGTGT TATTGTAAT	15780
GAGATTGATC TGGGAGGTAA GAACCACCTA GATAGGTATT GCTGAGTTT TCAAGGGTTC	15840
CGTCTTGATA GAGTTCTTTG AGCGCTTTAT CAAATGCTC TTTAACTCT TTTTGGTCGC	15900
TTGAGAAAAT GATATAATTG CTGGGGCTAT CTGCAGAAGG TAAATCAACG ACTGAGAGT	15960
CTAAACCACG GTCCTTGATA ATCTTTTGAA CGGATACCTT GTCAAAAAC AGGAAATCAA	16020
ACTCTCCGTT AGCAAGTCT AGGATTCGTT TACCAATATC CTCACCAGAA AAATTAATTG	16080
TAGCGGGATT ATCAGTGTGT TTCTGATTCC AGTTATTGAT GAATTGAGCG TTAGAAGTTC	16140
CGGTATCCTC TTGTGTGTT TTACCAGCGA TCTGGTCAAG AGAAGTCAA GGATTTTCT	16200
TGTTGCTGAC AAGGACGAGG GGATTGTTGG AAATGGAAG CGAGTAAAGG TATTTTTCAG	16260
CACGCTCTTT TGTGTAATC AAGTTATTGG CCGCAGCCTG ATAGTACCA GAATCAAGTC	16320
CTGGGAAGAT GCTCTCCAG GCGTTCTTT GGAATTGAAT CTCGTAGTCG CTGAGTTT	16380
CATCTACTGC CTTTAAACT TCGATATCAA AGCCTGTCAG ATTGCCCTTG TCTTCGTAGT	16440
CAAATGGTGG CACGTCGCCA GCTGTAGCAA GGACGATTGT CTTTGTAGCG CTAGTCTCTT	16500
TGGGTGTAGC TTGATTCTCA CAGGCAACCA AAAATGGTAG GATAGCTAGT AATAGGCTAA	16560
ATTTTTTCAT ACTGTCTCCA TTCAAATGTA AAG	16593

(2) INFORMATION FOR SEQ ID NO: 53:

476

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3510 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 53:

GGGATATCCT TATATCCTTG TTCCTGGAAC CATGTGGGA ATTGCTCAAC AGTTTTTTTCA	60
CCTTGAATTC CTGGTGCAAT GACAGTAAGA ATTTGAAAT CACGATCTGG TTTCGCCGCT	120
AGTTCCATCA ACTCTGGCAT ACTTTCTTG CATGGACCAC ACCATGAAGC CCAAACTTC	180
AAGTAAACCT TTTTACCCTT AAAATCAGAT AACTTAACTT CTTTGCCATC CATGGATTGC	240
AATGTGAAGT CTGGAGCATC TTTTCCAACA GCAATTTGTT GTACAGTCGT TTGTGTGTTT	300
GGCTGTGTG CTGCTTGAGT CTTTGTAGTT TCTTCCTCAC CACAGGCCAT CAATACAAC	360
AATGACAAGA GACTTAAGCC AGCAAACATT ACTTTTTTCA TTTGTCCTCC TTTATTCAAA	420
AATTCAGCT AGAATCTTA CTTGCTCTAA TAGTAACAAA ATTCCTCTTA AAACAATGAG	480
GAAACCACCA ATTTTCTTTA GTAGCATCAT ATGACGCTTG ATTTTACTAA AATATGGCAT	540
GACTAGACCT GAAGCTAGTG CCAATACCAA GAAAGGAAGG GCCATGCCAG AGTGTAATG	600
AGAGTATAAA TCGCTCCTTG CCAAGCGCCA TTGCCTCCAG AAGCCGCAAG TGCTAAAACA	660
GAAGTTAAAA CTGGACCAAT ACAAGGTGTC CAACCAAGC TAAAGGTAAT ACCAAGTAAA	720
AAAGCTGACC AATAACGATT AGAATCTGAT TTTTAAAGG TAAACTTTT TTGAAGTTCT	780
AATTTCTTCA AATGAAAAAT TTCCATCTGG TGAAGACCCA AAATGATAAT AATAGCTCCC	840
ATGCCATATC GAAACCAATT TGCATAGAGA ATATGACCAA AGTAACCAGC ACCAAAGCCT	900
AGAATAAAGA AAATGAGAGA GATACCAGCG ATAAAGCAAA GTGTTGGAAT CAAGCCTGAC	960
CAGAGAACCT TTCTCCCAA CAAAGAAAAG CTTTTTGAC TTTCTTGATC ATCCAATAAA	1020
ATCCCAGCAT AGACTGGCAG AAGAGGAAAA ATACAAGGAG AAAAAAGGA TAAACACCT	1080
GCTAGAAAAA CAGAGATTAA AAATACTATC GTTTCCAATA AAGAACCAAC TTTCTTAATA	1140
ATTCTAATCC TATTTTACTA TATCAATTT TATTTGTAAG CTTTCTGCTA CGCAAAATCG	1200
TATCGGGCAC TATTTGACCA ATCTTTTCTT TTGCTAGTCA AGGCGGATCT TATCCCCCAA	1260
AATAGCCAAA AAGCAACGAC AAGGATTACT CATCGCTGCT TTTGTGAACG AAAATGTCTT	1320
TTAGGTCTGA CATTTCTATA ATCATGTTTT ACTTGAGTTT GTCAAGGATT GCTTTAAGCT	1380
CCTCTACTAG TTTAGTTTCT GTCTCTGCTG AGCCATTTTC TTCTTTCACG AAATCAAGGG	1440
TTTCTTGGAG AAGGTTTGG GCTTTGGCAA GGACTTTTTT ATCCGCTTTT TCTGCATCTA	1500

477

GCTGTCCTAG AACCTTGATC AATTCCTGTC TTAATTGCTG GATTTCTGAC TCTTCTTAC	1560
GGCGAATCAG CCAGAAGGCA ATCACGCCTA GGAGGGCAAG TAGACTGACC ACAATCACTC	1620
CTGCCGGAAC TGAGTTTGTT TCAGTCATCT TATCTGAATC CTTACTATCT TCCGTTCTT	1680
GTTTTGCATC CTTCTTGTC TGTGCAGGCT TGCTGTCGCT AGCATTTGCT TTCACATCTT	1740
TGAGAGAGTC CAAGGCAGCC CAGCCTTCAC AGACTCTACT GCAGTATGCA GACCTTACTC	1800
TGTCAAGGCA CTATCTTCG GAGCTTTTGG AGCATCTAGG AGGACAGCCT TGGTTGCATC	1860
GATTTTCGGA TCAGATACTG TTGCCAAAGC TTTCAAGCGT TGGTCTAACT CTTGACTCAA	1920
GGCAGCAAGT TCAGACTTGT CAACTTGCTC TTGAGCTTGT GTGCTCGTTG AGCTAGCCGA	1980
AGCGCTTGCT ACCACTCTAG GATCTTGAGT CGGAGCTGAG CTTGGAGCTG GGACAGGGCT	2040
TGCAGGTTGA CTAGGAACAG TTATGGTATA TTGAACTAG AATAGTACAT ATGGACTTCT	2100
AAAACATTGT TAGAATTCGA TTTTACTGTC CTGATCGATT TGTCCTATTC TTATTTTATT	2160
TTACTATAAT AACCGATGGT GTGGTTAATG TTGGTAAGAG AAACCTCTGA AACCAAGCTT	2220
CAAAAAAGTC GCTCGTCATC GTCTCTTCGT AAGTCATTGG AGCGATTAAT TCACCATTGG	2280
TTAGACCTGC AACCAAAGAA ATCCTCTGAT ATCTTCTTCC AGATACTTTG CCTCTTATTA	2340
ACTGACCTTT TAATGAGCGA CCATATTCTC GATAAAAATA AGTATCGAAT CCTGTTTCGT	2400
CAATCTAAAC AGGTGCTAGG TGCTTTAAAC TATTAAATTT CTTAAGAAAT AAGGCTACTT	2460
TTTCTGGGTC TTGTTTCATAG TAGGTGTGGT TCTTTTTCCT GAGTGTAGCC CATAGCTTTG	2520
AGCGCATAGT GGATGGTAGT TGGATGACAG CCAAATCAG AAGCTATTTT AGTCAAATAA	2580
GCCTCTGGAT TGTCAGTAAG ATAGTTTTTA AGTCTATCTC TATCAACTTT TCTTGGTTTT	2640
GTTCCTTTTA CTTGGTGGTT TAGCTCTCCT GTTTCTCTT TTAGCTTTAA CCAGCCATAA	2700
ATGGTATTAC GTGAGATTG GAAAACGTGT GATGCTTCTG TTATACTACC TATTCGCTCA	2760
CAATAAGAGA GAACTTTTTT ACGAAAATCT ATTGAATATG CCATAAGAAG ATTATACCAC	2820
ATTGTGTACT ATTTTGGTT CATTTCACTA TAACACAAA TAGATTATTA TTACATAACA	2880
AAAAAGAGGT CTAAACCTCT TAACTCAATT ACTCCGCCAG TAGGACTCGA ACCTACGACA	2940
TCATGATTAA CAGTCATGCG CTACTACCAA CTGAGCTATG GCGGATTAAA GCTAAGCGAC	3000
TTCCCTATCT CACAGGGGGC AACCCCAAC TACTTCCGGC GTTCTAGGGC TTAACCTCTG	3060
TGTTCCGGCAT GGGTACAGGT GTATCTCCTA GGCTATCGTC ACTTAACTCT GAGTAATACC	3120
TACTCAAAAT TGAATATCTA TTCAATTTAA GAAAACCGTT CGCTTTCATA TTCTCAGTTA	3180
CTTTGGATAA GTCCTCGAGC TATTAGTATT AGTCCGCTAC ATGTGTCGCC ACACTTCCAC	3240

478

TTCTAACCTA TCTACCTGAT CATCTCTCAG GGCTCTTACT GATATATAAT CATGGGAAAT	3300
CTCATCTTGA GGTGGkTtCA CACTTAGATG CTTTCAGCGT TTATCCCTTC CCTACATAGC	3360
TACCCAGCGA TGCCTTTGGC AAGACAACTG GTACACCAGC GGTAAGTCCA CTCTGGTCCT	3420
CTCGTACTAG GAGCAGATCC TCTCAAATTT CCTACGCCCG CGACGGATAG GGACCGAACT	3480
GTCTCACGAC GTTCTGAACC CAGCTCGCGT	3510

(2) INFORMATION FOR SEQ ID NO: 54:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 20986 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 54:

CGGAGAAAAA CATGGCTAAG TCAAACTTTG AAAAAGTAGA ATCAGTTGTT GGCTGGGTTC	60
GTGATAAGAA AATCACAGGC TACCGTATCT CTAAAGAAAC GAATGCGCGT GAAATGTCTA	120
TCATTGTCTT GGCGCAGGT CGTGCAAAAG TAAAAATAT TTCATTTGAA ACAGCCCTAG	180
GCCTAATGA TTTCTATGAA AAAAATTATG AAAAATTGA AGATTAATCT TTGGATAACG	240
GCGGATTCTT GACCTTCAAG TAGTAGAGAT AGAGAATCTG CCTTTTCATT TTGAGGACAG	300
CAAAAAGACT GCACGGTTGA TGCAGCCTTT TCTTTTATT TGAGATAGCG TTGAAGGAAC	360
TCTTTTGTTC GGTCTTCTTT AGGATTGGTG AAGAGGTCTT CTGGTTTACC TTCTTCAGCG	420
ATCACGCCCT TATCCATAAA GATAACACGG TGAGAGACAT CACGGGCAAA TTCCATTTCA	480
TGGGTACGA CAATCATGGT CAAGCCTTCC TGAGCCAGGT CCTGCATGAT TTTGAGGACT	540
TCTCCAACCA TTTCTGGATC GAGAGCTGAT GTTGGTTCAT CAAAGAGAAT AGCGTCCGGA	600
TTCATGGAGA GGGCACCAGC GATGGCCACA CGTTGTTTTT GACCACCTGA GAGTTGTTTT	660
GGTTTGGCTT GCCAGTAGCG TTCTCCCATG CCGACCTTTT CCAGGTTTTT TTTGGCAATC	720
TTTTTCAGCTT CTGTGCGTTC GCGTTTtagg ACAGTTGTCT GAGCGACGAT TGTGTTTTCA	780
AGAACATTGA GATTTTCAAA GAGGTTAAAG GATTGGAAAA CCATCCCCAA CTTTTCACGG	840
TATTGCGTGA GGTCATAGCC TTTTTCGAGG ACGTTTTGTC CATGATAAAG GATTTGTCCA	900
TCAGTTGGTG TTTCAAGTAG GTTAATGGAG CGTAGGAAGG TCGATTTTCC GCTTCCAGAG	960
CTTCCGATGA TAGAGATGAC CTCTCCCTTG TGGACAGTGA GTGAAATGTC TTTTAGCACT	1020
TCGTTTTGTC CATAGGATTT TTTGAGGTGT TTAATTTCAA GGATTGCTTG TGTCATTATT	1080
TCAAATCCTC CGTTTGCAAT TGGTTAGCAC CTGTAGTGTA GGTATCCATG TCCATTCTGC	1140

GCTCGATAAA GCGTAGGATA CGTGTACGG TGAAGGTGAG GACAAAGTAA ATCACGGCGA	1200
TGATTGTAAA TGTCTGGAAG TATTGATAGG TTTGTGTTGC CACGGTATTT CCTGAGAAAT	1260
AAAGTTCGAC AACAGAGATA ACGTTCAATA CAGATGTATC TTTGATATTG ATGACAAATT	1320
CATTACCACT TGCAGGTAGG ATGTTACGGA CTACCTGAGG TAGGACAATC TTACGCATGG	1380
TCTGGTTATG GGTACATACCA AGAGCAGTCG CAGCTTCAAA TTGTCCCTTG TCAACTGCTA	1440
GGATACCACC ACGGACGATT TCAGTCATGT AGGCACCGGT ATTGATTGAA ACGATGAAGA	1500
TAGCAGCCAG TGTACGGTCA AGGTTGATCC CGAAAGCTTG GGCAGTTCCA TAGTAGATAA	1560
CCATCGATTG AACCAATCATT GCGGTACCAC GGAAAATTTC AATGTAGACA TTGAGAACCC	1620
AGCCGACTAG TTTTGTAGG CCGTAAATGA CTTTGTTTTC AGAGAGAGGA GCAGTACGGA	1680
AGACACCAAT GGCAAGTCCA ATAATGAGAC CTATGATGGT TCCGACGATA GAGATTAAAA	1740
GAGTGATACC AGCACCACGC AAGAGTTGTT GCCAGTTTTC AGAAGAATT TTAGCAACTT	1800
GGCTAAAGAA ACTACTGCTA GTCTCTTCAG TTGTTGTAGC TTCGGCAGGT TGTTCTTTGA	1860
TCATACGATC CATCAAGGCA ACTTGGTCAT CTTTGTAAAT GGTTCATATG CTGGCATTGA	1920
TTTGGCTAAT ACGATTGTCA TTTTACGAA GCCCGATAGC GATAGCTGTA TCTTCTTCCC	1980
CAGTTTTGAA ACCAGGTTCT ACTTGAATCA TCTTGAACCT AGAGTTCGCA GCTTCAGCAG	2040
TCAGTGCTTC TGGACGTTCA GAAACATAAG CATCAATGAC ACCAGCCTCA AGAGCTTGTC	2100
GCATTTGAGC GAAGTCTCCC ATGGCTGTTT CTTTTTAGC ACCTGGGATT TGTGCAATCA	2160
AGTTATAAAG GTAGACCCCT TGTTGAGAAG TGATTTTTGC ACCGTTAAAG TCATCCAAAG	2220
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480

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481

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482

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483

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484

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485

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486

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487

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AAAATATTGG AACAGTTGAA TCGTTATTTC CACACCATCG TAACTGAAAA GAAATCAATT	16440
GAGAATGGTA CGATTACAGA TCCGATGGGT GAGTTAATTG ATTTGCAATT GGGCACAGAT	16500
GGAAGATTG ATCCAGCAGA TTACACTTTA ACTGCAAACG ATGGTAGTCG CTTGGAGAAT	16560
GGACAAGCTG TAGTGGTCC ACAAATGAT GGTGGTTTGT TAAAAATGC AAAAGTGCTC	16620
TATGATACGA CTGAGAAAA GATTCGTGTA ACAGTCTGT ACCTTGGAAC GGATGAAAAA	16680
GTACGTTGA CCTACAATGT TCGTTTGAAT GATGAGTTTG TAAGCAATAA ATTTTATGAT	16740
ACCAATGGTC GAACAACCTT ACATCCTAAG GAAGTAGAAC AGAACACAGT GCGCGACTTC	16800
CCGATTCCTA AGATTCGTGA TGTGCGGAAG TATCCAGAAA TCACAATTTC AAAAGAGAAA	16860
AAACTTGGTG ACATTGAGTT TATTAAGGTC AATAAAAAATG ATAAAAAACCT ACTGAGAGGT	16920
GCGGTCTTTA GTCTTCAAAA ACAACATCCG GATTATCCAG ATATTTATGG AGCTATTGAT	16980
CAAATGGCA CTTATCAAAA TGTGAGAACA GGTGAAGATG GTAAGTTGAC CTTTAAAAAT	17040

488

CTGTCAGATG GGAAATATCG ATTATTTGAA AATTCTGAAC CAGCTGGTTA TAAACCCGTT	17100
CAAAATAAGC CTATCGTTGC CTTCCAAATA GTAAATGGAG AAGTCAGAGA TGTGACTTCA	17160
ATCGTTCCAC AAGATATACC AGCGGGTTAC GAGTTTACGA ATGATAAGCA CTATATTACC	17220
AATGAACCTA TTCCTCCAAA GAGAGAATAT CCTCGAACTG GTGGTATCGG AATGTTGCCA	17280
TTCTATCTGA TAGGTTGCAT GATGATGGGA GGAGTTCTAT TATACACACG GAAACATCCG	17340
TAAAGTGTAG AAATGATAAT ATCTATGTTC TGAACGATAC TTTTAAGAAG TAGCACTCAA	17400
GAAGAGATTT AAGTTTACTT GGTGAAACCT GTTTTATTCG TAAGTAAACT ATCATTGAAA	17460
GGGAGATGTT TTTGCAAAAC TTGCACAGAA AAAGGATTAT TATTGTCATG TGTAATTCAAT	17520
TACATTGCTC ACAGTTGATT TTAAGAGATA TGAATAAGGA GAAATCATGA AATCAATCAA	17580
CAAAATTTTA ACAATGCTTG CTGCCTTATT ACTGACACGG AGTAGCCTGT TTTCAGCTGC	17640
AACAGTTTTT CGGGCTGGGA CGACAACAAC ATCTGTTACC GTTCATAAAC TATTGGCAAC	17700
AGATGGGGAT ATGGATAAAA TTGCAATGA GTTAGAAACA GGTAACATATG CTGGTAATAA	17760
AGTGGGTGTT CTACCTGCAA ATGCAAAAGA AATTGCCGGT GTTATGTTTCG TTTGGACAAA	17820
TACTAATAAT GAAATTATTG ATGAAAATGG CCAAACCTTA GGAGTGAATA TTGATCCACA	17880
AACATTTAAA CTCTCAGGGG CAATGCCGGC AACTGCAATG AAAAAATTAA CAGAAGCTGA	17940
AGGAGCTAAA TTAAACACGG CAAATTTACC AGCTGCTAAG TATAAAATTT ATGAAATCA	18000
CAGTTTATCA ACTTATGTCG GTGAAGATGG AGCAACCTTA ACAGGTTCTA AAGCAGTTCC	18060
AATTGAAATT GAATTACCAT TGAACGATGT TGTGGATGCG CATGTGTATC CAAAAATAC	18120
AGAAGCAAAG CCAAAAATTG ATAAAGATTT CAAAGGTAAA GCAAATCCAG ATACACCACG	18180
TGTAGATAAA GATACACCTG TGAACCACCA AGTTGGAGAT GTTGTAGAGT ACGAAATTGT	18240
TACAAAAATT CCAGCACTTG CTAATTATGC AACAGCAAAC TGGAGCGATA GAATGACTGA	18300
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AGGTGATTAT GCTCTAACAG AAGTAGCAAC TGGTTTTGAT TTGAAATTAA CAGATGCTGG	18420
TTTAGCTAAA GTGAATGACC AAAACGCTGA AAAAAGTGTG AAAATCACTT ATTCCGCAAC	18480
ATTGAATGAC AAAGCAATTG TAGAAGTACC AGAATCTAAT GATGTAACAT TTAAGTATGG	18540
TAATAATCCA GATCACGGGA ATACTCCAAA GCCGAATAAG CCAAATGAAA ACGGCGATTT	18600
GACATTGACC AAGACATGGG TTGATGCTAC AGGTGCACCA ATTCGGCTG GAGCTGAAGC	18660
AACGTTTCAT TTGGTTAATG CTCAGACTGG TAAAGTTGTA CAAACTGTAA CTTTGACAAC	18720
AGACAAAAAT ACAGTTACTG TTAACGGATT GGATAAAAAAT ACAGAAATATA AATTCGTTGA	18780
ACGTAGTATA AAAGGTATT CAGCAGATTA TCAAGAAATC ACTACAGCTG GAGAAATTGC	18840

TGTCAGAAC TGGAAAGACG AAAATCCAAA ACCACTTGAT CCAACAGAGC CAAAAGTTGT	18900
TACATATGGT AAAAAGTTTG TCAAAGTTAA TGATAAAGAT AATCGTTTAG CTGGGGCAGA	18960
ATTTGTAATT GCAAATGCTG ATAATGCTGG TCAATATTTA GCACGTAAAG CAGATAAAGT	19020
GAGTCAAGAA GAGAAGCAGT TGGTTGTTAC AACAAAGGAT GCTTTAGATA GAGCAGTTGC	19080
TGCTTATAAC GCTCTTACTG CACAACAACA AACTCAGCAA GAAAAAGAGA AAGTTGACAA	19140
AGCTCAAGCT GCTTATAATG CTGCTGTGAT TGCTGCCAAC AATGCATTTC AATGGGTGGC	19200
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TACAGGCCTT CTTGCAGGTA CATATTACTT AGAAGAAACA AAACAGCCTG CTGGTTATGC	19320
ATTACTAACT AGCCGTCAGA AATTTGAAGT CACTGCAACT TCTTATTCAG CGACTGGACA	19380
AGGCATTGAG TATACTGCTG GTTCAGGTAA AGATGACGCT ACAAAGTAG TCAACAAAAA	19440
AATCACTATC CCACAAACGG GTGGTATTGG TACAATTATC TTTGCTGTAG CGGGGGCTGC	19500
GATTATGGGT ATTGCAGTGT ACGCATATGT TAAAAACAAC AAAGATGAGG ATCAACTTGC	19560
TTAAGTAAGA GAGAAAGGAG CCATTGATGA CAATGCAGAA AATGCAGAAA ATGATTAGTC	19620
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CGCAAGAAGA TCACACGTTG GTCTTGCAAT TGGAGAACTA TCAGGAGGTG GTTAGTCAAT	19740
TGCCATCTCG TGATGGTCAT CGGTGCAAG TATGGAAGTT GGATGATTCG TATTCCTATG	19800
ATGATCGGGT GCAAATTGTA AGAGACTTGC ATTCGTGGGA TGAGAATAAA CTTTCTTCTT	19860
TCAAAAAGAC TTCGTTTGAG ATGACCTTCC TTGAGAATCA GATTGAAGTA TCTCATATTC	19920
CAAATGGTCT TTACTATGTT CGCTCTATTA TCCAGACGGA TGCGGTTTCT TATCCAGCTG	19980
AATTTCTTTT TGAATGACA GATCAAACGG TAGAGCCTTT GGTCATTGTA GCGAAAAAAA	20040
CAGATACAAT GACAACAAAG GTGAAGCTGA TAAAGGTGGA TCAAGACCAC AATCGCTTGG	20100
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AGCCACTGGC AGGCTATGCT GTTACGACGC TGGATACGGA TGTCAGCTG GTAGATCATC	20340
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AAAGCGGACA CTATACTCCT GTTCTTCAA ATGGTAAGGA AGTAGTTGTA ACATCAGGGA	20520
AAGATGGTCG TTTCCGAGTG GAAGGTCTAG AGTATGGGAC ATACTATTTA TGGGAGCTCC	20580

490

AAGCTCCAAC TGGTATGTT CAATTAACAT CGCCTGTTTC CTTTACAATC GGGAAAAGATA	20640
CTCGTAAGGA ACTGGTAACA GTGGTTAAAA ATAACAAGCG ACCACGGATT GATGTGCCAG	20700
ATACAGGGGA AGAAACCCTT GTATATCTTG ATGCTTGTGT CCATTTTGTT GTTTGGTAGT	20760
GGTTATTGTC TTACGAAAA ACCAAATAAC TGATATTCAA TGTACATCAT TATGAATAGG	20820
ATAGCAGGCT GAAGGGAAGA CCAGAGTACT CTGAGGTGAT GTTAATCAGG AATCATGGTG	20880
ATGTGGCATG AATCATCAAT AACGGATATG AGGCTGGGCA GATTGTGCCA GCCTCATTGT	20940
GGGTATTGT TTGTAAAACG ATAGGACTGG TCTGGTAATC ATTTTA	20986

(2) INFORMATION FOR SEQ ID NO: 55:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 21040 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 55:

CCCAGCAAAA AGCCATCCGA AGATGACTTT TTTGCTATTT AATTTCTGTA TAAGTTACTT	60
CCAAGCCACG CTTAACAGCT GGACGATTGG CAATTTTTC TGCCCATTTT ACTAGATTTT	120
GATAACTTGA GGCATCCAAG AATTTTGCGA AACCTTGGA AAGATTCCT TGAACAACT	180
GTCCATACCA AGACCAGATA GCAATATCTG CAATCGTATA GTCATTGCCT GCAATATAAG	240
GTTCCTGAGC CAATTCCTTA TCCAATAAAT CCAACTGGCG TTTCACCTCC ATCGTAAAC	300
GGTTAATAGG ATATTCCAAT TTTCAGGAG CATAATTGAA GAAATGTCCA AATCCCCCAC	360
CTAGAAAAGG TGCTGCACCT GCTTGCCAGA ATAGCCAATT CAAAACCTCT ACCTTTTCCA	420
CAGGATTACT TGGTAAAAAG GCTCCAAATT TCTCAGCAAG GTAAAGAAGA ATATGAGCAG	480
ACTCAAAGAC TCTTACGTTT TCAGTACCTG ACTGGTCCAA TAAGGCTGGA ATCTTGGAAT	540
TTGGATTGAG CTTACAAAAG TCTGATCCGA ATTGATCCCC ATCCATGATA GCAATCTTAT	600
ACAAGTCGTA AGCCGCTTCC TTAACCAG CTTCTAGTAA TTCTTCCAAT AAGATAGTAA	660
CCTTCACACC ATTTGGTGT CCCAGTGAAT AAAGCTGAAA AGCTTGTCT CTTTGGCA	720
AGTTTTGTTT GAAACGGGCA CCTGCTGTTG GTCTGTTTAG CCCCCTAAA GCTCCTTGAT	780
TACTAGCTTC ATCCTGCCAT ACGGTCGGTA ATTGATATGC TGACATCCGA AACCTCCCTT	840
AAATCGCATT CTTGTCAAAA CCGAGTTTGC GTTGAATAAA CTTAACGATT TCGACGATGA	900
TAATCATTGA GAAGCTTCCA GCCATAACAA TTCCCCATTG TGACAAGTCT AGTTTGGTTA	960
CGTGGAAGAT TCCTTCAAGC GGTCTACAA CGATTGTTGC CATGAGAAGG ATAAAGGATA	1020

491

CCAAGATGGA CCAGTTAAAG GTCTTAGACT TGAATGGGCC AACTGTCAAG ATGGATTGGT	1080
AGACAGACTT GACATTGTAG GCATGGAAGA GCTGAATCAA ACCAAGGGTT GCAAAGGCCA	1140
TCGTTAGGGC ATCTGCATGA ATAGCATGAT TGTCACCCAC ATGAACTGGG TAAGCAATCG	1200
CAAGGCCATA AACACTCATA ACAAGAGCTG CTTGGAGTAC ACCTTGATAA ATGATAGAAC	1260
TCAAAACACC ACCTGAGAAG AAGCTTGCCT TGCCTCCACG TGGTTTATGA TTCATGACAC	1320
CAGGTTCCGC AGGTTCAACA CCAAGAGCGA TAGCTGGGAA GGTATCCGTT ACCAAGTTGA	1380
TCCACAAAAG ATGAACCGGC TGAAGACAT CCAACCAAA CAAGGTTGAT AGGAAGATGG	1440
TTAATACTTC AGCAGTATTA GCAGAAAGTA GGTACTGAAT AGTCTTTTGA ATGTTTGAGA	1500
AGACCTTACG TCCTTCTTCC ACTGCGACGA TAATAGTCGC AAAGTTATCA TCTGCAAGAA	1560
TCATATCAGA AGCCCCCTTA GAAACCTCTG TACCAGTGAT TCCCATACCG ATACCGATAT	1620
CGGCTGTTTT CAGAGCTGGC GCGTCATTGA CACCGTCACC TGTCATGGCA ACGACTTTAC	1680
CTTGTTTTTG CCAAGCCTTG ACGATACGAA CTTGTGTTC TGGAGACACA CGGGCATAAA	1740
CAGAGTATTG ACCAACGACT TTTTCAAAT CTTCATCTGA CAGTTCATTG AGTTCAGCAC	1800
CAGTTAAAAC GTGACCTTCT GTATCGTTTG CGTCAATGAT TCCCAAACGT TTGGCAATGG	1860
CTTCCGCTGT GTCTGGTGG TCACCTGTAA TCATAATTGG ACGGATFCCC GCTTCCTTAG	1920
CCACACGAAC AGCCTCAGCG GCTTCAGGAC GTTCAGGGTC AATCATCCCA ATCAAACCAAG	1980
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TCTTATAAGC ACCTGCAAGG ACACGCAAGG CTTGATGAGC CATTTTCAGAA TTGTTTGTAC	2100
GAATGAGATT TGTAACCTTC TCATCAATCG GAGCAATATC CCCAGCCTTA TCACGAAGAA	2160
GACAACGTTT TAAGAGTTGG TCTGGCGCAC CCTTGACTGC TACAAGGAAA CGACCATCTG	2220
GCAATGGGTG AACTGTTGAC ATGAGCTTAC GGTCAGAGTC AAATGGCAAT TCAGCTACAC	2280
GAGGATATTT CTCTAAGAAA CCTTTGACAT CATAGCCCTT GTCCAAGGCA TATTGGATAA	2340
AGGCTGTTTC GGTTGGGTCA CCAATCAAGT TACCTTCCAC ATCGATTTTC GTATCATTTG	2400
CCAAGACAAC TGAACGAAGT AGTGGCATT CAGACCTAG TTCAATATCA TCAGCTGAGT	2460
CATGTAGAAC CGCATCGTAG AAGACTTTTT CGACTGTCAT CTTGTTTATA GTCAGCGTAC	2520
CAGTCTTATC AGAAGCGATG ATTTCAAGTT AACCAAGTGT TTCAACTGCT GGCAACTTAC	2580
GAACGATGGA ATGTCGTTTG GCCAAAACCT GAGTACCAAG AGAAAGAACG ATGGTAACGA	2640
TAGCAGGAAG TCCTTCTGGA ATGGCTGCAA CGGCAAGGGC AACAGAAGTC AACAACTCAC	2700
CAAGTGGATT TTTCCCTTGA ATGAAGACAC CCACTACAAA AGTAACAAGG GCAATGACCA	2760

492

AGATAGCATA GGTCAAGACC TTAGAAAGGT TGTTCAAATT TTGTTTGAGT GGTGTATCAG	2820
TCTCATCCGC ATCTTGAAGC ATACCAGCAA TATGACCAAC TTCAGTGTAC ATACCTGTAT	2880
TGACAACAAC ACCCATCCCA CGACCATAGG TTACGTTTGA GTTTTGGAAG GCCATGTTGA	2940
CACGGTCACC AATACCAGCA TCTGTCGCAA GCTCGACTGA CAAGTCTTTT TCGACTGGTA	3000
CAGATTCAAC TGTCAAGGCT GCTTCTTCAA TTTTAAGAGA GTTGCGTTCT ATCAAACGTA	3060
GGTCCGCTGG TACCACGTCA CCTGCTTCAA GGGCAACGAT ATCGCCTGGT ACCAATTCTT	3120
TAGAGTCAAT CTCTGCCATG TGTCATCAC GAAGAACGCG GGCAACTGGA CTAGACATGG	3180
ATTTGAGGGC TTCAATAGCT TCTTCAGCTT TTCTTCTTG GTAAACACCA AAGGCAGCGT	3240
TGATGATAAC CACAGCTAGG ATGATAATGG CATCTGCGAT ATCTTCCCCA CCAGAAGTCA	3300
CGACTGACAA GATTGctGCC GCAACTAGGA TGATAATCAT CAAATCCTTA AATTGCTCGA	3360
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CAAGGCGCTT TTCCGCCTCA CTGATGACA AACCTTGCTC GGTCGCATCC ACAGCCTGCA	3480
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TCCTCCTTGA CATTGTGTGC AAAACAGACT CTCTTCTGT CATAGCTTTT CACGACAAAC	3600
AAAAAGAAAC CTGTAAATCA TAACAAGTCT CGCTGTTTAA GATAGGGCCG GAAAGCATAC	3660
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AGTAGTACCA TTATACAAA TTTTGGGGAG TTTTCAAAGA GTAAAACTG CCTTATTTGA	3780
ATTTTCTCTT GAAAACAGT ATAATGGTAG AATGCTATGT GACTAGAAAG GAAGTTGAAT	3840
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CTATTTGATC TTGTCTGCAG CCAAATTAGC AGCTGGTCAT CTCCCTCATT CATCCAGTTT	3960
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GATTCCGATG GCGCGCCACC TGCAGACCGT GACCACCGTT TTGGTCATG GAAGATTGAA	4080
GATTGGCAA GCTTGATCAC TTCTATCATC ATGTTCTATG TCGGTTTCGA TGTCTAAGA	4140
GATACCATTC AAAAGATTCT CAGTCGGGAA GAAACGGTCA TTGATCCTCT TGGTGCAACT	4200
CTAGGAATCA TTTCTGCAGC GATTATGTTT GTGGTCTATC TCTACAATAC TCGCCTCAGT	4260
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ACCTCACTTG GAACCGCCAT TGCCATCCTA GCTAGTAGTT TCAATTATCC GATTGTGGAT	4380
AAACTGGTTG CTATCATCAT CACTTCTTCT ATCTTGAAGA CTGCCTATGA TATCTTCATC	4440
GAGTCTTCTT TTAGTCTTTC AGATGGCTTT GACGACCGCC TGCTCGAGGA CTACCAAAAG	4500
GCTATCATGG AAATTCCCAA AATCAGCAAG GTCAAATCGC AAAGAGGTCG CACCTACGGT	4560

493

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CATGAAATCG CGGATCAGGT CGAGTCTATG CTGGAGGAGC GTTTTGCGCT CTTTGATACC	4680
GATGTCCATA TCGAACCAGC ACCTATCCCT GAGGATGAAA TTTTAGACAA TGTCTATAAA	4740
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GATGATTTTG TCTATATTCG CCAAGATGGA GAGCAGATGG ATAAAGAGGC TTATAAGACC	4860
AAAAAGAGT TAAATTCTGC TATCAAGGAC ATTCAAATTA CTTCCATCAG TCAAAAAACC	4920
AAACTCATCT GCTATGAGTT AGATGGTATC ATCCATACCA GTATCTGGCG TCGCCACGAA	4980
ACCTGGCAA ATATCTTTCA TCAAGAAACC AAAAAAGAT AGAGAAATCC TTTTCATGAGA	5040
CGGGATTTT CTATTCTTTT ATACTCAATA AAAATCAAAG TGCAAATTAG GAAGCCGGTC	5100
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AGTCTTAACT ATCAAATCA CTGAGATACT CATAGCGTTC GTATTTTCA AGGAGTGCTT	5220
CATTTTCTC ATCCAATTCT TTTTGAGAG TAGCCAGCTT ACCAAAGTCA GAGCCGTTAG	5280
CCTGCATTC CTCTCAATA GCAGCGATAC GTTTTCCAA GGTTCATA TCACCTTCAA	5340
TACTTGCCCA CTCCTGCTTT TCTTGGTAGG TCATGCGTTT CTTGTCTTCT CGAACCTTGA	5400
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GAATCTTGGT CGCTACCTTA TCCAAGAAAT AGCGGTCGTG ACTGACTGTT AAAACGGGAC	5580
CTGCAAAACC TTGCAAGAAA TTCTCTAAGA CTGTCAAAGT TGCAATATCT AGGTCATTGG	5640
TTGGCTCGTC TAAAGAAGA ACATTGGTT TTTCCAAAAG CAGTTTGAGG AGATAAAGAC	5700
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CTGCCACTTC CTGCAGGTAA TTGATCACAC GCTTGCTTTC ATCCAAACCC TCAATTGTT	5880
GAGAGAAATA GCGATGCGA ACAGTTTCCC CAATCACAAAC TTGTCTGCT GTCGGCTCAA	5940
GACTTCCTGC AATCAGGTTA AGTAGGGTTG ATTTTCCAAC ACCATTGTCC CCAACAATTC	6000
CAATACGGTC TTTAGCCTGA ACTAAGAGAT TAAAATTTTG CAAAATGGGC TTATTTTCAT	6060
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GATTGATACG AGCTTGTTC TTGGTCGCAC GCGCCTGCGG TTGTCTGCGC ATCCAGGCCA	6240
ATTCTTGTT GTAGAGTTGT TCTTTTGT GAAGAAGAGC CGCGTCGCGC TCATCCTGTT	6300

494

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CCAACGCGAA AATCCGTGTT GACAAAGCGT CTAAGAAATA ACGATCGTGA GTGATAAAAA	6420
GGACGGTCTT CTTAGAATTT TTCAAAAAGA GGGTCAGCCA CTCAATAATC GCAATATCCA	6480
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TGCCCAATTT GCTAAGAACG GTCTTGACCT GACTTTCGAT TTCCAAGCT TGGAGAGAGT	6660
CCATCTCTGC CATGACACGT TCCAAACGCG CCTGCTTGTC CTCACTATAG TCGAGCATAA	6720
TCAATTCATA CTCACGAATG AGCTGGATTT CCTTGAGTTC ACTAGATAGA ACCGTATCCA	6780
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CAATCTCCA TCGACAATGG CAAACTCAAT CTCTGTTAAA ATCTCTCCCA AGTCTGGGCC	7140
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CTTGCTCAAT TCTCCATTTT CACGCAGAGC CAAAATAATC AGCAAATCCT GAACCTGCTT	7380
GGCAAACGCG CGTGAGGTCT TCCAAGATTT CAAAAATGAC TGCGCATTTT CAATCTCCAA	7440
AGCCCATAGT AAAGCCGCCC AGGCTTGTTT AGAGGATTCA AAAGTAAAT CAGTCTCCAA	7500
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AGCTTTAAAT GTTCTGGCT CAAGTGCAA ACCAAGACTA GCCTGAAAAC GGAAACCACG	7740
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CTCATCTCC TCATCCCAT CTAAGACCAA GACGGTTCCA TGCTCGATTC CGATATCGGC	8040
TGTTGCGGGA AAAATCTGCT TGGTCTCTTC TGGATAAGAA GACGTGCGAA TATCCACATC	8100

495

GTGGATAGGG CTATGGAGAA GGGCATCTCG AACAGAGCCC CCAACAAAAT AAGCCTCAAA	8160
GCCTGCTTCT TTAATTTTTT CTAATACTGG TAAAGCCTTC TGAAATTCAG AAGGCATTTG	8220
CGTTAATCTC ATAATAAGTG TTCTAATCCA TAGACAAGCT CATGACGCTT GACAACTTCT	8280
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GTC AACCTT CTCCCTGATT GCCAAAGATG ACTTCCTGAT GAGCTACCAA GCCTGGCAAA	8400
CGAACTGAGT GGATGCGCAT ACCATCAAAG TCAGCACCAC GAGCACCAGC AATCAGCTCT	8460
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GAACCAAGC CAAAATCAAG CAAGTGCTGA CGCAATTCTT CAGCCTTTTC AGGAGCATTC	9420
CCATGAATGA CAATGACCCG GTATTGACCT GAAGCCGTG TTTCCTTGAT AATTCAATT	9480
AAGCGCTTGG TGGCCTTCTT TTCAGTACGA ACTTTTTCGT AAATTTCAAT CACACCTTGA	9540
TCGTTAAAAA AAAGGATTGG CTTAATGCTA AGCAAATGTC CCAAATGGC AGCCCCATTT	9600
GAAAGGCGTC CACCTTTTAC CAAATGATCC AAGTCATCTA CCATGATAAA GGCTGACGTA	9660
CGGCTGATTT GAATGGCTAG CTTATCCTGA ATGCTGGCAA AATCATCGCC CTGATCACGC	9720
CAATTAAAGA CGCTTTCAAC CATGATGCCT AGGGGAGCAC TTGTAATCAA AGTGTCTGGG	9780
AAAGCAATGG TTAAGCCCTC ATAGTCATCG ACCATATACT GGATATTTTG GTAAAACTT	9840

496

GAAATTCAG AAGATAGGAA AAGCCCCAAG GCATGTGTAT AGCCTTGTTT TTTGAGCGAA	9900
GTTAAGATCT CATCTAACTT GGCAATACTT GGTGACTGG TCTTAGGCAA TTCAGAAGCC	9960
TGAGCCATTT TTTGGTAAAA TTCCTCAGCA GACAGATTGA TGCCTTCGAC ATATTCCTCA	10020
CCATCAATAT TGACAGGAAT ATCCAAGACA AACAAGTCTT CTCTTTGCAA GATCTCTGCA	10080
CTGAGATAAG CAGAGGAATC TGTGAAAACA GCTAATTTCA TATTAGAACT CCAAATTAAT	10140
TCCTGGTAAG TCTAATGCAA TTTCAGTCAC TTCGTAAGTC AAACGATTGA GCATGTTCAA	10200
ACATGGACGA GCCAAGGTTT CCACCTCTTC TTGGTTCAAT TCACTTGGTT CATTGACAAT	10260
ACGGCCATCG ATATGGTTTA CTGTGAGAT TGTTCCTACTA ATGACAAACT TATCAAATAC	10320
AATCATAAAG CTCAGATGA CAATCAAGGA AGTCACTTGA TTTTCTTGGT CATGTTGGAG	10380
CAATTGGAAA TTCACATCCA CCTTGGTTTC AGGAGCTCCA TTTTCATTTT CCCATTCAAA	10440
ATTACGCGCA TCAAAATGAT ACTGACTAAC AAATCTTGT TCACGTTTAA GATTCATGTC	10500
TTTCTCCATC GGCTACAATA TTATAAGCTA TTGTACCATA ATTTTATTAT TTCATCTAGT	10560
TTTCTAGGAT TTAGTCAATC CCAATTTTCA CACGAAGTAC ATCTGTGATG GTATCAACAT	10620
AGTAGTTTAC TTCTTCTGTT GTAGGCGCTT CTGCCATAAC ACGCAAGAGG GGTCTGTGTT	10680
CACTTGGACG AACAAAGGATA CGGCCGTTCC CCGCCATTTC TTCTTCCATC TTCTCGATGA	10740
TGGCCTTGAT AGCTGGCACT TCCATGGCCT TTTCCTTCAT GACGTTTTCC ACTCGGATAT	10800
TAACTAATTT TTGTGGATAA ATCGTTACTT CTGCCGCCAA CTCTGATAAG CTCTTACCAG	10860
TTTCCTTCAT GATTTTAGTC AATTGAAGTG CTGATAATTG ACCATCACCT GTGGTATTGT	10920
AATCCATCAA GATAACGTGA CCAGACTGTT CACCACCAAG GTTGTAGCCT GATTTTCTCA	10980
TTTCTTCAAC AACGTAGCGG TCACCAACTG CAGTAACTGC CTGTGTAATA CCTTCGCGAT	11040
TCAAGGCCIT GTGGAAACCA AGGTTAGACA TAACAGTTGT CACAATTGTA TTTTGAGCCA	11100
ATTGTCTTTT TTCAGAAAGG TATTTTCCGA TGATGTACAT AATCTTGTCA CCATCAACGA	11160
TGTCACCATT CTCATCAACA GCAATCAAGC GGTCACGTGC TCCATCAAAG GCCAAACCAA	11220
TAGCTGACCC ACTTTCTTTG ACCACTTCTT GAAGGGCTTC TGGATGTGTT GAACCAACAT	11280
TAAGTTTGAT GTTAAGACCG TCTGGTGTTC CCCCATAAC CGTCAATTGG GCACCAAGGT	11340
CTGCAAAGAT TTGACGGGCA CTGGTAGAAG CTGCTCCATT AGCTGTATCC AAGGCAACCT	11400
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TGGATAATCT ACCAAAATTC CTAAGCCTTC TGCACCTGGA CGAGGAAGAG TGTCTTCCTC	11520
AGCATCTAGC AAGGCTTCAA TTTCTGCTTC TTTTTCATCA TCTAGTTTGA AGCCATCACC	11580
GCCAAAGAAC TTGATTCGGT TATCAAGGC TGGGTTGTGG CTAGCAGAAA TCATGACACC	11640

GGCACTTGCT CCTTCAGTTT CAACCAAGTA AGCTACTGCT GGTGTTGCAA GGACACCAAG	11700
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ATTGTATCAA ACGGAGTGAT AACTGCCGGT AAGACAACAC CATTGCGGTC GATTGCCTGC	12120
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ACCATGACAT TTTCAATTG TACCCGACTA TCAATTGAC TAGGGTCAAT CTCTGGTACA	12300
ATCTTTACCT TATCCTTCTG AGCCTTCTTA CCAATCTTGA CTGTAATTTT TGGCGGAGTC	12360
GCCACAGCGG TCAGCCCAT TGGTAAATCT TCAATGCTCA AAGGAACCTC AATCGTTCCA	12420
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AATCTTAGCA TCCAAGGGAA TTCCTGTCGA AATATACTCC TGCAAGGTAC GTACACGCTG	13140
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CAAACGTTCC AAACCAGTCC GAATCTCTGG AGAGAAGATA ACAACCGCCG CAATAACCCC	13320
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498

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AATAGCTTTT GTAAATGGT ATAAATATA AGCAACAATC AAAATATCAA TCAGATTGAT	13500
AGCTATCGTC CATGGACTTG CAAACAACT GGTCCAATAT TGCAGATTGG ATAATTGTTG	13560
AAAATTCATC CCTGATATCC TCCCTATCAA AACACTTTCG TCCTATTATA CCATTTCTG	13620
GCATTTTTTT CCCTATCCTA GTCCATTTTA CATTGAACAA AAATATGATA AAATAAACTG	13680
ACTAAAAAAA ACAAGGAGA AACTATGTCT CAACTCTATG ATATTACCAT TGTGGGTGGT	13740
GGTCCTGTGC GGCTTTTTCG AGCCTTTTAT GCCCACCTAC GCCAAGCCAA GGTTCAAATC	13800
ATCGACTCTC TTCCCCAGCT AGGTGGACAA CCTGCTATTC TCTACCCTGA AAAGGAAATC	13860
CTAGACGTAC CAGGCTTCCC AAACCTGACT GGAGAAGAGT TGAATAACCG CTTGATTGAA	13920
CAGCTAAATG GATTTGATAC CCCTATTTCAT CTCAATGAAA CGGTTCTTGA GATTGACAAA	13980
CAAGAAGAAT TTGCCATCAC AACTTCTAAA GGAAGTCACC TGAATAAAC AGTTATCATC	14040
GCTATGGGTG GCGGTGCCTT CAAACCACGT CCGCTGGAAC TTGAAGGGGT TGAGGGCTAT	14100
GAAAAATATCC ACTACCAGT TTCTAACATT CAGCAATACG CTGGTAAGAA AGTGACGATT	14160
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ACCCTTGTTT ACCGCAGAGA TAATTTCCGT GCCTTGGAAC ACAGTGTTCA AGCCTTGCAA	14280
GAATCATCTG TAACCATCAA GACACCATTG GCCCCTAGCC AACTCCTTGG AAATGGAAAA	14340
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GATTTTACTG ATATTGTAA TGGTCTTCAT GCTGGCAGAA ACTGTCCGAG CGATATTAGC	14940
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CTCAAAATCA TCACGTGCCT GCATGGCTCC TATTACTATC AAGAAGTCCA TAATGTCCTC	15060
TGCTCGCTGG AGATAGGTCA CAGCCCCCTT CTTGCGCTCA AGCACCTTGG CATCCAGTAA	15120
AAACTGTTGG AGAAGGGAGG CAATTCCTTG CGCGTGGTCC AGATAAACAG AACTGATTTT	15180

CAACTGGTAC	TGCTGACT	CAGGGTCACG	AATGCTCCCA	TTTGCCAAGA	AAGCGCCACA	15240
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GCCAAAGAAA	GACTCTGCCA	AGTGCAAATC	ACTTAACAAA	TCCTGCACCT	TTTCATCTGT	15360
AAAAACGGTA	TAGACGCGAT	TCTTGCGAAG	ATTGCTCCGT	TGGTGGTGAC	GAATTTCAGA	15420
TTTGATTTC	TAGAGATGGA	GAAAGGACTC	ATAGAGGTGA	CGGGCCAGTT	TGGCATTTC	15480
TGTCACAACT	GACAAAGTCA	AGCCCGAAGT	CGAGAGACCG	ATGCTACCAG	ACATTTTGAT	15540
AATGGCAGAT	AATTCATGCC	AGCTCAGATG	GTGTTGGCCC	AGGATTTCTT	CTTTTACTGC	15600
TACTGTGAAA	CTCATTTTTT	CACCTGTATA	ATGCGCATCA	ACTCGTCCAC	AATCAAATCT	15660
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TCCCCACGTT	GGGTCATGAT	ATTGCAGACA	TAGGCAATTT	CTGCCTTGGT	TTCCAAAAGA	15960
GCCCCGCCAA	TTTCCTTAAT	CACGATATTG	GGCAAAATAG	AGGTAAAGAG	GGAACCTGGC	16020
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GTATCATCGT	TTAGGGCATT	GGTCACATAG	ACATTGTCAA	TTATGCCTCG	ATGGTCTACA	16140
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TGGCCAGCAA	AGGCTCCGGC	ATCCTCAGAG	AACCGATACT	GAAAGACCTT	CTCATAAAAC	16380
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GCGATTTC	CATCTTTTTC	CCGAGACTT	TTTAGAATGA	CGGGACTTCC	AGTCCCTCCA	16560
CCAATCACCG	TTATCTTTGG	TTTCTCATG	AACGGTTTAC	CGTTTCCTTT	CTGCGGTCTT	16620
TGTCGCGATG	CCCTTCATTA	ACAGACCAAT	TCTTGATAA	GTCTGCGCC	AAGCGTTTAG	16680
CAATGCCAC	ACTACGGTGT	TGTCCACCCG	TACATCCCAT	GGCAATGGTC	AAAACGGACT	16740
TACCTTCCTT	TTGGTAACCT	GGCAGAATCG	GCTCAATCAA	GGCCAATAAA	TGTTGATAAA	16800
AGTCTTCTGA	CTCAGGATGG	TTCATGACAT	AATCATAAAC	AGGTTTCATCC	ACACCCGTTT	16860
GGTTTCTCAG	TTCTGGTAAA	TAATAGGGAT	TTGGCAAGAA	ACGGACATCA	AAGACCAAGT	16920

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CCAACTTGAT TCCATCTAAA ATACGACCGT CTGCTGCTAG TGGGTGACTC CGTCTGGTTT	17160
CCTTGTAACG AGCGACCAAT TCCTTATCAG CCGCATCCAA AAAGAGGATT TTGAAATCCA	17220
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GTTGTTTCTT TGTCATCTTT TTCTCCTTAT ATCAAAAGAA GTTTGGCAAC ACCAACTTC	17520
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CCTTATCTGT ATGAATTGTT TTTGCCATTT TCTTTTCTC ACAATTTTTC TAAGATTGCA	17940
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CGGAGATTTT CCCGAGTCGT TAAGTACTCC TCAATCATGC ACCCCCACTT TTCACGTTCC	18240
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TCAGCATTGT GTGTATTAAG TTCCATAGTC ACCTCTAGGC TGTTTCTAGG ATCGGTTTAT	18540
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CCTCAAACAT GACATCTAGC ATGGTTTCTT CGATGATGGA GCGAAGTCCA CGCGCCCTG	18660
TCTTCCGTTT GATTGCTTTA TTAGCAATCT CTTGAAGGGC TTCGTCGTC AATTCCAAC	18720

501

CAACATCATC ATAAGAAAGC AAGGTTTGGT ATTGTTTCAC CAAGGCATTT CTTGGCTCTT	18780
TCAAGATGCG AACCAAGTCA TCAACGGTCA ATTGCTCAAG AGCCGCAAAA ACAGGCAAGC	18840
GTCCAATCAA CTCAGGGATA ATACCAAATT TTTGAATGTC TTCAGCGATG ATTTCTTGCA	18900
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CCAGACGTG TTTGACAATT TCTTCAATAC CATCAAAAGC ACCACCCACG ATGAAGAGGA	19020
TATTTTTTGT ATCCACTTGA ATCATCTCTT GTTGTGGATG TTTGCGTCCA CCTTGAGGCG	19080
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GGAGGATATT TTCCACATCC TCACCCACAT AACCAGCCTC CGTCAGAGCT GTCGCATCCG	19320
CAATAGCAAA AGGTACATTC AAGCTCTTAG CCAAGGTCTG GGCAAGGAAA GTTTTCCCTG	19380
AACCAGTTGG GCCAATCATC AAAATGTTTG ACTTCTGCAA ATCCACATCT TCTGACTCTT	19440
CGCGTGTATC GTGGAATTG ATGCGTTTGT AGTGGTTATA AACCGCCACT GCCAAGGCAC	19500
GCTTGGCAGC ATCTTGACCA ATTACATAGT GGTTCAGAT ATGGAGGAGT TCAATTGGTT	19560
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GAGTAATCTC CACGCATTCA TTACAAATAA AAGCATTGTT GCCAGCAATT ATTTTGTGA	19680
CTTCTTCTTG GTTTTGGCCA CAAATGAGC AATAAACCAT CATATCATTT TTCTATTG	19740
TAGACATGAT TTCCTTCCAT TCTATACTGT CATTCTATCT AAAATAAGGT CATGTAAAAA	19800
GCATGAATAC TATTGACCAG ATTGGTAAAG GCATTTAACC AAAGGAGGAT AGAAAGCCCG	19860
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GTGAATAGAC CAAATAAACT CCGTTCCATT AGACTTCCTT TCTCTTGCGG TATTGGATGG	19980
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GAGACAAGTC AAGTTCTTCA GGGAAATAGG TATCTCCTTC CACCCGAGCA TGAATGTGAG	20100
TGACAATCAC TTCATCAAGG TAAGGTTCAA AAGCCTGAAA AATTGCTTC CCACCGATAA	20160
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GAAGCAAGCG ACGCCCCATC CCATCAAAGG TCACACGCCC CATCAAGATA GCATGATTCA	20340
GAGTTGTTTC TTTAAAGTGC TGCAATTCTG CTGGCAAATG CCAAGGCAGA CGATTTTCCT	20400
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502

CATCCTTTTC ACTGATAGTA CTATTTTATC AAAAAACTCA AAAAAAGACT GGTTCGGAAT	20520
AGCTTACAAA ATAGAAAAAA TCTGTAAGAA ATTCCTTACA GATTTATCTA TGTTTCCTTA	20580
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TTTCAGTTTT AGCGCCTGCA AAGATACCGT TTGTCACATC GTCACCTTCT TCATCAGTGA	20700
CATCCAAACC TTTTGGAAA AGTTCTGACA AGTAACGGTA GATAACAAGA ACACGTTCCTA	20760
AGCTTCTTTC AACATTACGG TATTCACCAG CTTCTTCTTC GATTTCACTA TTTTGAAGGA	20820
ACTCTGTCAA TGTAAGAAAT GGGCTTCCAC CGAGTGTAAT CAAGCGTTCA CTGATTTTCAT	20880
CCAATTGACC GTCAAGAGCT TCCATGTACT CATCCATTTT TGGATGCCAT ACAAGGAAAC	20940
CACGACCATG CATATACCAG TGCACCTGGT GCAAAGCAAC GTGAGCTACA TACAAATCAG	21000
CAACAGCTTG GTTCAAGACT TCCTTTGTTT TTGCCAATGC	21040

(2) INFORMATION FOR SEQ ID NO: 56:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 2387 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 56:

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GATAACTTAT TTGATATTAT AGATGGTGAT AGGGGCAAAA ATTATCCTAA ATCAGATGAG	180
TTGTTTAGTG AGGAGTACTG TTTATTTTAA AATACAAAGA ATGTTACTAA AAACGGATTT	240
TCATTGATA CAAAGCAATT TATCACTAAA ACAAAGGATA AATTACTTCG AAAAGGCAAA	300
CTTGAGCGTT ATGATATAGT CTTGACAACA AGAGGTACTG TTGGAAATGT AGCGTACTAC	360
GATGAATTAA TAAATATATA ACATTTACGT ATAAATTCAG GTATGGTAAT ATTACGTCCC	420
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AAATCACAAT TGGCAATCCA AAAATCTCTG GAAGAACTTG AAACTTTGAA GAAATCTCTG	660
ATGCAGGAGT ATTTTGGCTG ATATTCTGCC ATTGTAATTA CGGTAATGAT TTGTTATAAT	720
ACTTCAAAGG AGGAAATCAG ATGGTAGTAA AAACAAGAAA ACAAGGAAAT TCAATCACCA	780
TTACGATTCC AAGTGAATTT AATATTCCAA GTGGTGTAA ATACGAAGCG AAATTGTTAC	840

503

CAAGTGGTGA GATTATCTTT ACTCCTGAAG AATTGGGGCA GCAGGTTTCT TATGTATCTG	900
ATGATGCCTT TGACTTAAAT TTAGATAAAA TATTTGACGA ATACGACGAT GTTTTCAAAG	960
CTTTGGTGGG AAAATGACAA TCTATTTGAC AGAAAAGCAA ATTGAAAAAA TAAATGCTTT	1020
AGCAATTCAA CGGTATTCTC CAAATGAGAA AATTCAAACA GTTAGTCCTT CTGCCTTAAA	1080
TATGATTGTG AACTTACCAG AACAATTGT CTTGGGAAG CCTCTTTATC CAACAATTTT	1140
TGATAAAGCA ACGATACTAT TTGTCCAATT GATAAAGAAG CATGTTTTTG CTAATGCTAA	1200
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TGTAACGGTA GAAGAAGCAG TAAAAATGTG TGTAACCATC GCAGTAGAAG CTTTAACTGA	1320
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GAAGTATTCG AATAATAACC TGTGCAACT ATTTATTACC GCCAAGCAGG TAGAGGGCTG	1680
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AACTGTGAAA ATTTGAGAGA TTTGGCAATA ATAGACCTAC TAGCATCGAC AGGTATGCGT	2040
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GGAAAAGTCC AGAGGCTTGG AATTGCTGGT GTAGAGATTC GCTTAAGAAA GTTAGGAGAC	2280
AAACTCGGCA TACAAAAGGT TCACCCACAT AAGTTCAGAA GAACCTTAGC GACTAAGGCA	2340
ATTGATAAAG GTATGCCTAT CGAACAAGTC CAAAAACTGC TAGGTCA	2387

(2) INFORMATION FOR SEQ ID NO: 57:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10669 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

504

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 57:

ATATTAAAGC GACTTTCTGT GCGCTAGGGA AAAATGTTCC TGGGAATGAG GACTTGGTGA	60
AGAGGATAAA ATCTGAAGGT CATGTTGTTG GAAACCATAG CTGGAGCCAT CCGATTCTCT	120
CGCAACTCTC TCTTGATGAA GCTAAAAAGC AGATTACTGA TACTGAGGAT GTGCTAACTA	180
AAGTGCTGGG TTCTAGTTCT AAATCATGC GTCCACCTTA TGGTGCTATT ACAGATGATA	240
TTTCGCAATAG CTTGGAATTT AGCTTTATCA TGTGGGATGT GGATAGTCTG GACTGGAAGA	300
GTAAAAATGA AGCATCTATT TTGACAGAAA TTCAGTATCA AGTAGCTAAT GGCTCTATCG	360
TTTTGATGCA TGATATTCAC AGTCCGACAG TCAATGCCTT GCCAAGGGTC ATTGAGTATT	420
TGAAAAATCA AGGTTATACC TTTGTGACCA TACCAGAGAT GCTCAATACT CGCCTAAAAG	480
CTCATGAGCT GTACTATAGT CGTGATGAAT AAGCAAGAAA AAATAGGTCT GTTAGATATT	540
TGACAGACTT ATTTTTTACA GAATATAGTA CTACTTAAAA AATGTTTTAT GCTATAATTG	600
ATGAATAAAA TAGAAGGAGA AGCATATGAA TACCTATCAA TTAAATAATG GAGTAGAAAT	660
TCCAGTATTG GGATTTGAA CTTTAAGGC TAAGGATGGA GAAGAAGCCT ATCGTGCAGT	720
GTTAGAAGCC TTGAAGGCTG GTTATCGTCA TATTGATACG GCGGCGATTT ATCAGAATGA	780
AGAAAGTGTT GGTCAGCAA TCAAAGATAG CGGAGTTCCA CGTGAAGAAA TGTCGTAAC	840
TACCAAGCTT TGGAATAGTC AGCAAACCTA TGAGCAAACCT CGTCAAGCTT TGGAAAAATC	900
TATAGAAAAA CTGGGCTTGG ATTATTTGGA TTTGTATTTG ATTCATTGGC CGAACCCTAAA	960
ACCGCTCAGA GAAAATGACG CATGGAAAAC TCGCAATGCG GAAAGTTTGA GAGCGATGGA	1020
AGACCTCTAT CAAGAAGGGA AAATCCGTGC TATCGGCGTT AGCAATTTTC TTCCCCATCA	1080
TTTGGATGCC TTGCTTGAAA CTGCAACTAT CGTTCCTGCG GTCAATCAAG TTCGCTTGGC	1140
GCCAGGTGTG TATCAAGATC AAGTCGTAGC TTAATGTCGT GAAAAGGGAA TTTTATTGGA	1200
AGCTTGGGGG CCTTTTGGAC AAGGAGAACT GTTTGATAGC AAGCAAGTCC AAGAAATAGC	1260
AGCAAATCAC GGAAATCGG TTGCTCAGAT AGCCTTGGCC TGGAGCTTGG CAGAAGGATT	1320
TTTACCACCT CCAAATCTG TCACAACCTC TCGTATTCAG GCTAATCTTG ATTGCTTTGG	1380
AATTGAACCTG AGTCATGAGG AGAGAGAAAC CTTAAAAACG ATTGCTGTTC AATCGGGTGC	1440
TCCACGAGTT GATGATGTGG ATTTCTAGAA AATCATAAAA AGAATTGTAC ATTATTCTAA	1500
TTTTTGATAT AATAGTCAGC AGGAAAGAAA GTCTTATGGC GTTCTTCAAG CGAGCTTGGG	1560
ATAGTGGGAG CCAAGTAGGG CAAAATAAAG GGCTGGCGCT TTCTGTAGTA TTTTCAAAAA	1620

CAATGAAGTA ATAAATTAGG GTGGAACCGC GTTCTGACG CCCCTAGGTT AAATCAACCT	1680
AGGATTGTCA GATGTGGTTC TTTTGCTTAT TCAGTCTATT GTGTGAAAGA AAGGAGAGCC	1740
GTGGACAACC TTTATCTTGT AAAAGACGAT AGTCAACTAG CTACATTTTCG TGATTTTGTA	1800
GTAAGAAATA CTGAAAAGTT GAAAGATTAT CAATCTTTTT TAAAGAATGA ACTTGCAGTC	1860
TGTGATTAC CGCAAGCTGT TATTGGTCA GATTTTAATG CTGCTACACA GATTATTAGG	1920
GAAAGTGCTG TTCCAACCTA TACAAATAAT AGACGAGTGG TTATGACGCC TGATTTAGCT	1980
GTTTGGAAG AATTGTATTT GTATCAGTTG ATGGACTACG AGTGTTCTGA GCAAACTCAA	2040
GCAATAGAAA GTCACATCA TTCTTTATCT GAAAATTCC TCTTACAGAT TGTAGGACAT	2100
GAGTTAGCTC ATTGGTCGGA CATTTTITAG ATGATTTTGA TGGTTATGAC TCTTATATCT	2160
GGTTCGAAGA GGGGATGGTT GAATATATTA GTCGCAAGTA TTTCTTGACA GAAGAGGAAT	2220
TTCAAGCGGA AAAAATTTGT AATCAATCTC TCGTAGAACT TTTTCAGAAG AAGTATAGTT	2280
GGCATTCAIT GAATGATTTT GGTCTTCGA CTTATGATAA GAACTATGCA AGTATTTTTT	2340
ATGAATACTG GCGCAGCTTT TTGACAGTAG ATAAGTTGGT AGAAAATTTA GGTAGTGTAC	2400
AAGCGGTCTT AGATTCTTAT CATTTATGGG CAAATACAGA AAAAACTTTT CCCTTGTTAG	2460
ATTGGTTTGT TCAGCAGAAA TTAATTGAAA AAGAAATATA AAAACTAAAG GAGTAAACAA	2520
TGTCTAAGAA ATTAACATTT CACTGCATCA GTGGCAGAGA CCTCCTTACA GTCGGGCTGC	2580
TCCACGCTCA GCACTAGAGT GCCTGAGCTA GACGCAGTAC TAACTCGTCT TGCTCGTAT	2640
GATCGACGAG GCAGACTCGT GTCGCAAGTA ATTATTTTTT ATTAAGGAGT ATTCAATGTC	2700
TAAGAAATTA ACATTTCCTT GCGTCAGTGG CAGAAACCTC CTTACAGTCG GACTGCCCTA	2760
CGCTCAGCAC TAGAGTGCCT GAGCTAGACG CAGTACTAAC TCGTCTTGCC TCGTATAATC	2820
GACGAGGCAG ACTCGTGTCT CAAGAAATTA TTTTTTATTA AGGAGTATTC AATGTCTAAG	2880
AAATTAACAT TTCAAGAAAT TATTTTGAAT TTGCAACAAT TTTGGAATGA CCAAGATTGT	2940
ATGCTTATGC AGGCTTATGA TAATGAAAAA GGTGCGGGGA CAATGAGTCC TTACACTTTC	3000
CTTCGTGCTA TCGGACCTGA GCCATGGAAT GCAGCTTATG TAGAGCCATC ACGTCGTCCT	3060
GCTGACGGTC GTTATGGGGA AAACCCCTAAC CGTCTCTACC AACACCACCA ATTCCAGGTG	3120
GTCATGAAGC CTTCTCCATC AAATATCCAA GAACTTTACC TTGAGTCTTT GGAAAAATTG	3180
GGAATCAATC CTTTGGAGCA CGATATTCGT TTTGTTGAGG ACAACTGGGA AAACCCATCA	3240
ACTGTTTCTG CTGGTCTTGG TTGGGAAGTT TGGCTTGACG GAATGGAAAT CACTCAGTTC	3300
ACTTATTTCC AACAACTCGG TGGATTGGCA ACTGGCCCTG TGAATGCGGA AGTTACCTAT	3360

506

GGTTTGGAGC GCTTGGCTTC TTACATTCAA GAAGTAGACT CTGTCTATGA TATCGAGTGG	3420
GCTGATGGTG TAAATACGG AGAATCTTT ATCCAGCCTG AGTATGAGCA CTCAAAATAT	3480
TCATTGAAA TTTCGGACCA AGAATGTTG CTTGAAAACT TTGATAAGTT TGAAAAAGAA	3540
GCTGGTCGTG CATTAGAAGA AGGCTTGGTA CACCCTGCCT ATGACTATGT TCTCAAATGT	3600
TCACATACCT TTAATCTGCT TGACGCGCGT GGTGCCGTAT CTGTAACAGA GCGTGCAGGC	3660
TATATCGCTC GTATCCGTAA CTTGGCCCGT GTCGTAGCCA AAACCTTTGT CGCAGAACGC	3720
AAACGCCTAG GCTACCCACT TTTGGATGAA GAAACAAGAG CTAACTCCT AGCAGAAGAC	3780
GCAGAATAAA GAGAGTGACA AATTACGAAA ATGGGCGAAC AGAGTGAGCC CTGAGCCAGT	3840
TGCCGCACTG ATGAAGGTAT CCTTAGTGAA ACTAAGGATA CTAGGCAAAA TTGGAGACTT	3900
TTGGCTCCAA TTTTAGCAAT GAAACAACGA AGTTGGTTGC TTGCGTGCCA ATCACATAAG	3960
GCAAACTGGA AAATAAAAG ATACTTTTCG GAGAAAAAC ATGACAAAA ACTTATTAGT	4020
AGAACTCGGT CTTGAAGAAT TACCAGCCTA TGTGTGTACG CCAAGTGAAA AACAACTAGG	4080
CGAAAAATG GCAGCCTTCC TCAAGGGAAA ACGCCTGTCT TTTGAAGCCA TTCAAACCTT	4140
CTCAACACCA CGTCGTTGG CTGTTCTGT AACTGGTCTT GCAGACAAAC AGTCTGATTT	4200
AACAGAAGAT TTCAAGGGT CAGCAAAGAA AATTGCCTTA GATAGTGATG GAAACTTCAC	4260
CAAAGCAGCT CAAGGATTTG TCCGTGGGAA AGGTTTGACT GTTGAAGATA TCGAATCCG	4320
TGAAATCAAG GGTGAAGAAT ATGTCTATGT CACTAAGGAA GAAATTGGTC AAGCAGTTGA	4380
AGCCATTGTT CCAGGCATTG TGGATGTCTT GAAGTCACTG ACTTCCCTG TCAGCATGCA	4440
CTGGGCGGGA AATAGCTTTG AATACATCCG CCCTGTTTAC ACTTTAACTG TTCTCTTGA	4500
TGAGCAAGAG TTTGACTTGG ATTTCTCTGA TATCAAGGGA AGTCGTGTGA GTCGTGGCCA	4560
TCGTTTTTTG GGACAAGAAA CCAAGATTCA GTCAGCATTG AGCTATGAAG AAGACCTTCG	4620
TAAGCAGTTT GTAATCGCAG ATCCATGTGA ACGTGAGCAA ATGATTGTTG ACCAAATCAA	4680
GGAAATTGAG GCAAACATG GTGTACGTAT CGAAATTGAT GCGGATTTGC TGAATGAAAT	4740
CTTGAATTTG GTTGAATACC CAACTGCCTT CATGGGAAGT TTTGATGCTA AATACCTTGA	4800
AGTTCCAGAA GAAGTCTTGG TGACTTCTAT GAAGGAACAC CAGCGTTACT TTGTTGTTCTG	4860
TGATCAAGAT GGAAACTCT TGCCAAACTT CATTTCTGTT CGTAACGGAA ACGCAGAGCG	4920
TTTGAAAAAT GTCATCAAAG GAAATGAAAA AGTCTTGGTA GCCCGCTTGG AAGACGGAGA	4980
ATTCTTCTGG CGTGAAGACC AAAAATTGGT GATTTCAGAT CTTGTTGAAA AATTAAACAA	5040
TGTCACCTTC CATGAGAAGA TTGGTTCTCT TCGTGAACAC ATGATTCTGA CGGGTCAAAT	5100
CACTGTACTT TTGGCAGAAA AAGCTAGTTT GTCAGTGGAT GAAACAGTTG ACCTTGCTCG	5160

TGCAGCAGCC	ATTTACAAGT	TTGACTTGTT	GACAGGTATG	GTTGGTGAAT	TTGACGAACT	5220
CCAAGGAATT	ATGGGTGAAA	AATACACCCT	TCTTGCTGGT	GAAACTCCAG	CGGTGGCAGC	5280
TGCTATTCTG	GAACACTACA	TGCCTACATC	AGCTGAAGGA	GAACCTCCAG	AGAGCAAGGT	5340
CGGCGCAGTT	CTAGCCATTG	CAGACAAATT	GGATACGATT	TTGAGTTTCT	TCTCAGTAGG	5400
ATTGATTCCA	TCAGGTTCTA	ATGACCCTTA	TGCCCTTCGT	CGTGCAACTC	AAGGTGTGGT	5460
TCGTATCTTG	GATGCCTTTG	GTTGGCACAT	TGCTATGGAT	GAGCTGATTG	ATAGCCTTTA	5520
TGCATTGAAA	TTTGACAGTT	TGACTTATGA	AAATAAAGCA	GAGGTTATGG	ACTTTATCAA	5580
GGCTCGTGTT	GATAAGATGA	TGGGCTCTAC	TCCAAAAGAT	ATCAAGGAAG	CAGTTCTTGC	5640
AGGTTCAAAC	TTTGTTGTGG	CAGATATGTT	GGAAGCAGCA	AGTGCTCTCG	TAGAAGTAAG	5700
CAAGGAAGAA	GATTTTAAAC	CATCTGTTGA	ATCACTTTCT	CGTGCCTTTA	ACCTGGCCGA	5760
GAAGGCAGAA	GGGGTTGCTA	CGGTTGATTC	AGCACTATTT	GAGAATGACC	AAGAAAAAGC	5820
TTTGGCAGAA	GCAGTAGAAA	CACTCATTTT	ATCAGGACCT	GCAAGTCAGC	AATTGAAACA	5880
ACTTTTTCG	CTTAGCCCAG	TCATTGATGC	TTTCTTTGAA	AATACTATGG	TAATGGCTGA	5940
AGATCAGGCT	GTCCGTCAAA	ATCGTTTGGC	AATCTTGTC	CAACTAACCA	AGAAAGCAGC	6000
TAAGTTTGCT	TGTTTTAACC	AAATTAACAC	TAAATAAAAT	TTGATAAACG	GACTTTATCT	6060
TATTACAAAG	GAGAAGAAAT	GGATCCGAAA	AAAATTGCTC	GTATCAATGA	GCTTGCTAAA	6120
AAGAAAAAAA	CAGAAGGCTT	AACACCAGAA	GAAAAAGTGG	AACAAGCCAA	ACTACGTGAG	6180
GAGTACATCG	AAGGTTATCG	CCGCGCTGTT	CGTCACCACA	TTGAAGGAAT	CAAAATTGTG	6240
GACGAAGAAG	GAAACGATGT	TACACCAGAA	AAACTACGCC	AAGTACAACG	TGAAAAAGGA	6300
TTACATGGCC	GTAGTCTTGA	TGATCCAAAT	TCATAATAAT	ACTCTTCGAA	AATCAAATTC	6360
AAACCACGTC	AGCTTCACCT	TGCCGTACTT	AAGTACAGCC	TGCGGCTAGC	TPCCTAGTTT	6420
GCTCTTTGAT	TTTCATTGAG	TATATGTATT	CTTCTTTTTA	ACAAAGATAG	ATGAAACGAT	6480
AACAAAGAGA	CTAGCAGTTT	GTGTTTGCTA	GTCTTTTTTC	GCTAAAAAAG	GAACCATAAT	6540
GGTTCCTAAA	AACTATCATT	AGTAACTTGC	ACCGGCTGTA	GCGTCTGCGT	CACCACCGTG	6600
GCCTCCAGCA	TCCCTGAAT	CAGAAGCGCC	AGAAGTAGCA	TCGGCGTCTC	CATGACCTCC	6660
GGCAGCAGGA	GCAAATGGTC	CGTACCACC	CACCAAACGT	TGACCAGTCT	CTTTTAGGTA	6720
CCAGTCAAGC	CATGGTTGGA	AGTTAAAGAC	GATTTTCATTG	ATACCAGCGT	ATGATCCATC	6780
AGGATAGTAC	ATTGCTTGGT	AGTTGTGAGT	GTTGATAACA	CCTGCAGGAG	AACCTGGAAC	6840
GATCGTACGG	ACGTATTCTT	GGTTTCCGTT	GCGAAGTGTT	CCGATAACCC	ACTCTACGTT	6900

508

CTTCATACGT GCTGGTGGAA GAGAACCATG AACAGTCGAC ATACGGCTAC CTGATTGAGG	6960
TGGTACACGT TTAGCGAACA TAGTGCTGG ATCTTGGTGA GCGTTGTTGT AGTAGAGGAA	7020
TTGGTTGTTG TCGTCAGCGT ATGTCAATTC AAATGGCATA GCTTCAAGA ACATATCAAT	7080
TTGGTTAACT GTTAGGATAC CGTGGTCCAA TTTGACATAG GTATCACCAG AAACAGCACC	7140
AGTGAATGCT GCAACTTTTT CTACCCATTC TGGATCGTCA GGGTCAACTT CTGTGATGGT	7200
TGTAGCGATT GGTTTTCCAC AATCCAAGTC TTCTGATTCG ATTGGTTTTG GTTTTTTCAA	7260
TTTCGAAACG ACTCCTACGT ATTTAACAAA GTTATCTAAG CAAGTTTCAA GGAATTTAAC	7320
AGTGCCCTCG TTGGTGATAT TTCCGTTGTT ATCAAAAGCT TCCTTAGCTT TACCAAGAAG	7380
GAATTCGTTA CCTGGAAGCG TGTAGGCATT AACACCTGGA GCATCAAGGA TTTTACGAAG	7440
GTGAACTTGA GCACGTGATG TTCCCTGGTC ATAGTATGAT GCACCCACAA TCATAACAGG	7500
CTTGTTTTCA AATGGATGAA CTTCTGATGA AAGCCATTCA AGTACAGATT TGAGTGAAGC	7560
TGAGATAGTG TGGTTATGCT CAGGAGTAGC AATGATAACA CCATCTGCAC GAGTAATTTT	7620
GTTATATAAA TAACGTAATT GGAACTTTC ATCCCATTTT TCATCTGGT TAAACATTGG	7680
AACTTCGTCA ATTTCAAGAA CTTCTAATTC AAATTTGAGT TTGAAGTAGC GACGGATAAA	7740
TTCCAAGAGC TTACGGTTAT ATGATTGATC GTAGTTTGAT CCAACAAGTC CAACAAATTT	7800
CATTCTTTTT GGTCTCCTAT CTTACAAATT TTCCCACTCA AAGTCTTCAG CATCTTTGCG	7860
AAGTAATCTT TGTGCATTAC GTAATTTTTC TGTGATTTTT ACAAGATAC GGAAGTCATC	7920
AAAGATGGCA TCCAATTTCT TGATAACATC AAGGTCAACC AAGTCGCCAC TTGGGTTAAA	7980
TGCTTGAAGA GAGTGTGAGA GCAAGAATTC ATCTGGAAGA ACATTTGCCT TGATTTTCAGG	8040
AGCATTCAAG ATTTGACGAA GTTGCAATTG GGCACGAGAT GAACCAAGCG TACCGTAAGA	8100
AGCACCTGTA ATCATGATTG GTTTGTTCAA AAGTGGGTAA ATACCATAAG ACAACCAAGC	8160
AAGAGCGCTC ATCAAAACAG CTGGAATAGA GTGATCATAC TCAGGAGTAC CGATAATAAC	8220
GCCATCTGCC TCTTCGATTT TAGCAGCAAT TTCCAATATT TCAGCAGGTA CTTGCTTGTC	8280
AGCTGGTTTG TTGAAGACAG GAATGGCCTT GATTTCACA AGTTCAATTT CAGCTTTGTC	8340
AGTAAAGTGT TTTTGATGT ATTGAAGCAA TTGACGGTTT GTAGAACGTT TTGAATTTGT	8400
TCCAACAATA GCAATAAGTT TTAACATGAG ATTTCTTTTC TCTTTTTACA TAATACAATT	8460
TTAAATTCCT ATTGAAACAG TTGTCTCTAT AGAGTAGGAA TTCCTGAAGA ACAGCTTAGG	8520
TGGCCTTCTT TATCGATGAG GATGACTTCG ATGCCCTCCA AACTTTTCGAC TTGCCAGAGG	8580
ATAGAAGCAG GTCTTTCTCC AAAGAGTCGA GTCGTCCAGA TTTCGCCATC GACTGATTTA	8640
TCAGAGATGA TTGTTAGACT CGCTAGTTCC GTTTCAACAG GATATCCTGT TTGACTGTCA	8700

AAAATGTGAT GGTAACTCTG TCCATCGACG GTCAGGTGAC GTTCATAAAT GCCTGAAGTC	8760
ACGACAGATT TATTGACAAC AGGGATGGTC ATTAATGAT TTCCCTAGG ATTGGCTGGG	8820
TCTTGAATCC CGATTTGCCA TGGGTTATCC CCTCTTGCCT GATTTTTCCT AATGGTCAGG	8880
ATATTCCCTC CCAGATTGAT CAAGGCAGAA GTCACCCCTT CTTTCCTAAG AAATTGGGCA	8940
ACCTTATCCG CACTGTATCC TTTGGCTAAA CAACCTAGAT CGATCTTCAT TCCTTTCTGT	9000
TTTAAAAACA CAGTAGAAGT AGAAGAATCT AACTCGATAC CATGAGGATT GATTAGAGGC	9060
AGCACCGATT CAATTTCTTG AGGCTGGGCG ACCTTGGCAT CTGAAAAACC GATACGCCAG	9120
GTTTGAATTA AGGGACCAAT GCTGATATTG AGGTGGCTAG AGAGCGCTAG GCTATGCTCT	9180
AACCCAAAGT AAATCAGCTC AAACAGGTCT GGATGAACCG TGACGGGGGC TATTCCTGCT	9240
TGATAATTGA TTTCCATCAA CTCAGATTCT TGACTATTGG CGTTGAAGCG GTATTCAAGT	9300
TCTTTGAGCA AGTCAAAGGA TTTTGGAGA AAGATATCGG CTTGCTCATC CACTAATGAA	9360
ATAGTGATAG TAGTCCCAT TAGCCGTCA GAATGTGAAC GAAGAGTCAA GCTACCAACT	9420
CCTTCTCTT ATAGAAAATA AGTTGTAATA TCAAATAATC ATCTAAATTG AAGCCCTTAC	9480
ATTTCATTTT CATGTTATTA TAATACCATA AAGTTAGAAT TTTCACAAAC AAAATTTGGA	9540
AAAAGTCAAG AAATATGCTC ATAAATTC ATCAGGCTGA AAACAGGATA AATGGGGAAT	9600
TATTTTGTAT AAAAAATGCT GAAATAATAG TACCCCTT GTAAACGCTA ACGGTAAATG	9660
GTATACTAGT AAGGTAAAT TAGAATGAAG GCAGGAAAT TTTATGAGTA AAATCGTTGT	9720
AGTCGGTGCT AACCACGCTG GTACAGCATG TATCAATACC ATGTTGGATA ATTTGGGAAA	9780
TGAGAACGAA ATTGTTGTAT TTGACCAAAA CTCTAACATC TCTTTCCTAG GATGTGGAAT	9840
GGCTCTTTGG ATTGGTGAAC AAATTGACGG TGCTGAAGGC TTGTTCTATT CTGATAAAGA	9900
AAAATTGGAA GCTAAAGGTG CTAAAGTTA CATGAATCA CCTGTTCTTT CAATCGACTA	9960
TGATAACAAA GTAGTTACAG CGGAAGTTGA AGGAAAAGAG CACAAAGAAT CATACGAAA	10020
ATTGATTTTC GCTACAGGCT CTACACCAAT CTTGCCACCA ATCGAAGGTG TTGAAATTGT	10080
TAAAGGAAAC CGCGAATTTA AAGCAACTCT TGAAAACGTA CAATTCGTGA AATTGTACCA	10140
AAATGCTGAA GAAGTTATCA ATAACTTTC TGACAAGAGC CAACACCTCG ACCGTATCGC	10200
CGTTGTTGGT GGTGGTTACA TCGGTGTTGA ACTTGCTGAA GCCTTTGAAC GTCTTGAAAA	10260
AGAAGTGTG CTTGTTGATA TCGTTGATAC TGCTTGAAC GGTACTATG ACAAAGACTT	10320
CACACAAATG ATGGCGAAGA ACTTGGAAGA TCACAACATC CGCTTGGCTC TAGGTCAAAC	10380
TGTTAAAGCA ATCGAAGGTG ACGGTAAAGT TGAACGCTTG ATTACTGACA AAGAAAGCTT	10440

510

TGACGTGGAT ATGGTTATCC TTGCAGTTGG TTTCCGTCCA AACACAGCCC TTGCAGGTGG	10500
TAAGATCGAA CTCTTCCGCA ACGGTGCCTT CCTTGTAAGC AAGAAACAAG AAACATCTAT	10560
CCCAGACGTT TACGCTGTTG GTGACTGTGC GACTGTTTAT GACAATGCTC GTAAAGATAC	10620
AAGCTATATC GCTCTTGCTT CAAATGCTGT GCGCACTGGT AACGTTGGT	10669

(2) INFORMATION FOR SEQ ID NO: 58:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7542 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 58:

CGCGCTAATA GATACTTTAT GATAGAATAA AGAACAAGAT TGACAAGTAA GAGGAAACAT	60
TATGCAAAAT CAAACACTCA TGCAATACTT TGAATGGTAT CTGCCCCACG ACGGTCAACA	120
CTGGACGCGT CTGGCTGAAA ATGCTCCACA CCTAGCTCAT CTGGGGATCA GTCACGTCTG	180
GATGCCACCA GCCTTCAAGG CAACCAACGA AAAAGATGTC GGCTATGGGG TCTATGACTT	240
ATTTGACTTA GGAGAGTTCA ACCAAAAAGG GACTGTCCGC ACCAAGTATG GTTTCAAAGA	300
AGACTATCTT CAAGCCATTC AAGCCCTTAA AGCACAGGGA ATTCAACCTA TGGCCGATGT	360
AGTTCTCAAC CACAAGGCTG CTGCCGATCA CAGGGAAGCC TTTCAGGTTA TCGAAGTTGA	420
TCCTGTAGAC CGTACAGTTG AACTTGAGA ACCCTTCACC ATCAATGGCT GGACTAGTTT	480
TACCTTCGAT GGTGCGCAAG ATACCTATAA TGGCTTCCAC TGGCATTGGT ACCACTTCAC	540
CGGTACAGAC TACGATGCCA AACGCAGTAA ATCTGGGATT TATCTGATCC AAGGGGACAA	600
CAAGGGCTGG GCCAACGAGG AATTGGTCGA TAACGAAAAC GGAAACTACG ACTACCTCAT	660
GTATGCCGAC CTAGACTTTA AACATCCTGA AGTCATCCAA AACATCTATG ACTGGGCTGA	720
TTGGTTCATG GAAACGACTG GTGTAGCTGG TTTCCGTTTG GATGCCGTTA AGCATATTGA	780
CTCTTTCTTT ATGCGCAACT TCATCCGCGA TATGAAGGAA AAATACGGTG ACGATTCTTA	840
TGTTTTTGGT GAATTTTGGG ACCCAGACAA GGAAGCCAAT CTGGACTATC TCGAAAAAAC	900
GGAAGAACAC TTTGACCTTG TCGATGTTTG TCTCCACCAG AATCTCTTTG AAGCCAGTCA	960
AGCTGGCGCA AACTATGACC TTCGTGGCAT TTTCACAGAT AGCCTGGTTG AACTCAAGCC	1020
TGACAAGGCT GTGACTTTTG TCGACAACCA CGATACCCAA CGAGGACAAG CCCTTGAGTC	1080
TACCGTTGAA GAATGGTTCA AGCCAGCAGC CTATGCCCTC ATTTTGTAC GCCAAGACGG	1140
CCTTCCATGT GTCTTTTACG GAGACTACTA TGGGATTTCG GGGCAGTATG CTCAAGAAGA	1200

TTTCAAAGAA ATCCTTGACC GCCTCCTAGC CATCCGAAAA GATTTCGGCCT ATGGAGAACA	1260
AAATGACTAC TTTGACCATG CTAACGTAT CCGTTGGGTA CGTTCAGGTG CTGAAAATCA	1320
ATCCCAATC GCAGTCCTTA TCTCAAATGA CCAAGAAAAC AGCAAGTCAA TGTTCGCGG	1380
TCAAGATGG ACTAATCAAA CCTTTGTAGA TTTACTTGGT AACCACCAAG GTCAAGTTAC	1440
AATTGATGAG GAAGGTTATG GACAATCCC TGTCTCAGCT AGATCCGTAA GTGTCTGGGC	1500
AGTCAATACC ATCTAATAGC TCATAATAAC CAAGCTAGGT CCAAGCGGAT TTGGCTTTTT	1560
TGTATTACACA AAAAGACCTA CCCAAATGGA TAGATCTTTA CTTGATTACA ATTTACCTGC	1620
TACTGCATCC AACAATCTTT GGATCTTAGG TTGGTTGCTT CCTCCTGCCA TGGCCATATC	1680
TGGTTTACCA CCACCACGTC CATCGATGAT TGGTGCTAAT TCTTTGACAA GGTTCCTGC	1740
ATGAAGGTCT TTTGTCTTGC TTGCTACAAG GACATTGACT TTGTCAACGA TAGCGGCAAC	1800
TAGGACAAGA AGATCAGAGT AGTCTTTTTG TTTCCAGTTA TCTGCAAAAG TACGAAGGGC	1860
ACCGGCATCG GATACAGACA CTTGACTAGC AATGTAACGA TGACCGTTGA CTTCTCTAAC	1920
ATCTTTGAAG ATATCGCCTG CGGCTGCAGC TCGGGCTTTT TCTTTCAACT CAGCATTTTC	1980
TTTTTTGAAGT TGACGAAGTT GTTCTTGAAG TCCTTCTACC TTGTGAGGTA CTTCTTGAC	2040
TTGAGGTGCT TTCAAGGTTG CTGCGATAGC TTTAAGAGCA TCCTCTTGTT CACGATAGGC	2100
TTCAAAGGCT TCCTTACCAG TCACTGCCAA GATACGGCGA GTTCCTGAAC CGATTCTTC	2160
TTCTTTGACA ATTTTGAAGA GACCAATCTC AGAAGTGTG TCAACATGAG TACCACCACA	2220
AAGTTCAATA GAGTAGTCAC CGATAGTCAC GACACGAACT TCCTTGCCGT ATTTCTCACC	2280
AAAGAGGGCC ATAGCTCCCA TTTCTTTAGC AGTGTCAATA TCCGTTCAC CTGTCTTCAC	2340
TTCAAGTGCT TCCCAAATTT TCTCGTTAAC TTGCTGTTCA ATCGCACGAA GTTCCTCAGC	2400
AGTTACTGCT TGGAAAGTGG TAAAGTCAAA GCGAAGGAAT TCAACTTCGT TAAGAGATCC	2460
TGCCTGTGTT GCGTGGTTTC CAAGGATATT GTGAAGGGCA GCGTGAAGCA AATGAGTCGC	2520
AGTGTGGTTT TTCATGACAC GGTGACGGCG ATTGCTATCA ATTGCCAAGG TATATTCTTG	2580
GTTCAAGGCA AGCGGTGCAA GGACTTCAAC TGTATGAAGG GCTTGACCAT TTGGGGCTTT	2640
CTGAACATTG GTCACAGTAG CCACAACCTT ACCTGACTCA TCCAAGATTT GTCCGTAGTC	2700
AGCTACCTGT CCACCCATTT CAGCATAAAA TGACGTTTCC GCAAAGATAA GAGAGGCAGT	2760
TCCTTCTGAA ACAGCTCCTA CTTCTGCATT GTCAGCAACG ATAGCTACCA ATTTAGAAGA	2820
CAATTGGCTA GCATTGTAGT TGAAGACACT TTCTACAGTG ATGTTTTGAA GAGTTTCATT	2880
TTGCATACCC ATTGAGCCAC CTTGACAGC TGACGCACGC GCGCGTTCTT GCTGTTCTTT	2940

512

CATGGCTGCT	TCAAAACCTT	CACGGTCTAC	AGTCATACCA	GCTTCTTCAG	CGATTTCCTC	3000
AGTCAATTCA	ACTGGGAACC	CATAAGTATC	ATAGAGTTTG	AAGACATCTG	AACCAGCGAT	3060
AACAGATTGA	CCTTTTCTT	TCAAGTCTGC	TACAATGCCT	TGGGCAAAGT	GTTGACCTGA	3120
GTGAAGGGTA	CGGGCAAATG	ATTCTTCTTC	GCTCTTAACG	ATTTTCTCAA	TAAAGTCACG	3180
TTTCTCAAGC	ACTTCTGGGT	AGTAGCTTTC	CATGATTTT	CCAACAGTTG	GAACCAATTT	3240
GTAAGGAAA	GGCTCGTTGA	TACCCAATTT	TTGACCATGC	ATAGAAGCAC	GACGGAGAAG	3300
ACGACGAAGA	ACATAACCAC	GACCTTCATT	TCCTGGAAGG	GCACCATCAC	CGATAGCAAA	3360
TGAAGAGAA	CGAATGTGGT	CTGCGATAAC	CTTGAAGCTC	ATGTTGTCGC	CATCTTGGTC	3420
ATAAACCTTA	CCAGACAATT	TCTCGACTTC	ACGGATAATC	GGCATGAAGA	GGTCCGTTTC	3480
AAAGTTGGTC	TTAGCCCTT	GGATAACGGC	CACCAAACGC	TCCAAACCAG	CGCCCGTATC	3540
AATGTTCTTA	TGTGGCAATT	CCTTGATATC	GCTACGAGGA	ACAGCAGGGT	CTGCGTTAAA	3600
TTGTGACAAA	ACGATGTTC	AGATTTCAAT	ATAACGGTCG	TTTTCAATAT	CTTCTGCAAG	3660
CAGGCGAAGA	CCGATATTTT	CTGGGTCAAA	GGCTTCCCA	CGGTCAAAGA	AGATTTCTGT	3720
ATCTGGTCCA	GAAGGTCCCG	CACCGATTTT	CCAGAAGTTG	TCCTCAATTG	GAATCAAGTG	3780
ACTTGGATCC	ACTCCCACTT	CAATCCAGCG	GTTGTAAGAA	TCTTTATCGT	CTGGATAGTA	3840
GGTCATGTAA	AGTTTTTCAG	CAGGGAAATC	AAACCATTCA	GGGCTTGTC	AAAGCTCATA	3900
AGCCCAAGTG	ATAGCTTCGT	CACGGAAGTA	ATCCCCGATA	GAGAAGTTCC	CCAGCATTTT	3960
AAACATGGTA	TGGTGACGCG	CGGTCTTCCC	TACGTTTTCG	ATGTCGTTGG	TACGGATAGC	4020
CTTTTGGGCA	TTGGTAATAC	GTGGATTTTC	AGGGATAATG	GTCCCGTCAA	AGTATTTCTT	4080
AAGGTTTGCT	ACCCAGAGT	TGATCCACAA	AAGAGTTGGG	TCATTTACAG	GAACCAAAT	4140
TACTGATGGT	TCTACTGAGT	GACCTTTGGT	CGCCAGAAA	TCAAGCCACA	TTTGGCGTAC	4200
TTGTGCACTA	GATAGTTGTT	TCATATTGTC	TCCTTATTCA	CTTGTTTAAT	GTGATTGGCT	4260
TTCCAGCATT	TCCACATAGT	CAATCGCGAC	ACAGAGGGAA	ATGACTAGGT	CTGCATAAGC	4320
GTCTTCAAGA	ACCGTTACGG	TATAGGTAGA	AGTCAGATGG	AAGAGTTCCT	TCTTAATTTC	4380
CGCAATCAAC	TGATCGCGAT	CATCCAGCAA	TTTGAAATTC	AAATCCCAGA	TATNGCCCTC	4440
GATACGAAGA	CCTAGATTAT	CAAACCTATA	CTTATCTCGC	CAGAAGGTCA	ACTTCTTACG	4500
AATGACAAAA	CTCGAGCCAT	CCCGAAGCTG	AATTTCAAAA	CGAGGAAGCA	AGGTCAAGAT	4560
TTCTTTACTA	ATCTCACTGA	CTTGTTCAAC	AGCCGCATCA	TAGATGGTAA	AGGTTTTAGG	4620
AATCTTAAAA	AATGATCCCT	CCACCTGATA	GGCAATTTCT	CCCCGTGCAT	CCTTGATAGC	4680
GAAGCGTTCG	CCTCCAAGAC	GAACTTTTG	TTTGACAAGA	AATGTTTCA	TCAACACCTC	4740

CAAAAATCAA AAGACAAGCT CATATCACGA AGGGCGAAAA ACCGCGGTAC CACCTTCATT	4800
CAATGAACTT GTCATTCTCT TGTTCCTATG CAATTGTATG ATTGAGTAGC ATGACTTCCT	4860
AGCTTAGATG GCTCGCAGCA CCGCCATTTC TCTGGACTAA GACAAGTGAA AATCAATTCT	4920
CAACTTCTTT ATTATAACGT TTTTAAAGC TTGCGTCAAC TGGAAATGAT CTCCGTTGAA	4980
TTAGACCAAT TCCCTACATC TCTGATTACT TTTTCAGGAT ATATTTTTTC TTACTGCCAT	5040
TTTTCTTTTT ATCCCAAATT TTCATATTAC TAAACACAGC TACTAGAATA TTCCAAATA	5100
TAAAGGTGCC TATCACCCAA TATATGGACT CAGTTGTAG GTATTGTCGA TCCAAGCCAT	5160
CCTTTAAATG GAATAGTATA GCAGTTGGT TAACAATCAT AAAGGTTGGC CAGAACTTT	5220
TTTTGAAAAA AGTAGACATT TTCATTATTT GTTGCCGCTT TCTGTAAGGT TAATACTCAA	5280
TAAAAATCAA AAGCAAACCT AGGAAGCTAG CCTCAAGCTG TACTTGAGTA CGGCAAGGCA	5340
ACGCTGACGT GGTTTGAAGA GTATAGGCTT AGTATACTAC TAGGCAAGCA AATAACAAA	5400
TAAACAATA GAATAGAAAA AGATAGGGCT CTA AAAACTG ACTTCTATTC CTTAAAAACG	5460
AACCAGCTTG ACTGATTCGT CTTCTTACGT TTATCTCCTA CTTCCGATAC ATTTTAAACT	5520
GTAGGAAGAG GTCGTATAT TTCCCTGTCC ATTTATGGTC AAATTTCTCA TAAACTTCTA	5580
GGTGTTCAT GGTTCACAA TCGGGATAGA AGGCCTTATC TTCCTTTGTT TCCTCTGGGA	5640
GCAATTCCTT CGCTGGTAGG TTTGGTGTG AATAGCCGAC ATACTCCGCA TTTTGAGAG	5700
CATTTTCAGG TTTCAACATA AAGTTGATAA AGGCATAGGC TGAGTTTGG TTTTAACTG	5760
TTTTGGGAAT GACCATATTG TCAAACCAA GATTGCTGGC CTCTGTCGGT ACCACATAAC	5820
GTAGATTTTC ATTTTTTCT AACATTTGGC TGGCTTCACC AGAGAAGGTC ACGCCGATTG	5880
CAACATTATT CTGAATCATA TAGCCCTTCA TCTCGTCCGC AACGATAGCC TTGATATTG	5940
GAGTCAGTTT GTAGAGCTTA TCCACTGTCT CTTCCAACG CTGCAGATCC TTGGAGTTGA	6000
GGCTGTAGCC GAGGGAATTG AGTCCTAGTC CCAGCACCTC ACGCGCCCA TCAAAGAGCA	6060
TGATAGAATT CTTATACTCC GGCTTCCAAA GGTCAATCCA ATGCTCAGGC GCTTCATCTA	6120
CCATGGTTTC GTTGTAGACA ATTCCTAAGG TTCCCAGAA GTAAGGGATG GAGAATTTAT	6180
TACCTGGGTC AAAGGACTGG TTGAGAACT CTGGTCCGAT ATTTTCGATT CCTTCAATTT	6240
TTGAATAATC AAGCGGAACC AAGAGGTCTT CGTCCTTCAT CTTGTTAATC ATGTATTAC	6300
TTGGAATGGC AATATCGTAG GTCGTTCCAC CCTGCTTTAT CTTAGTGATC ATGGCTTCGT	6360
TGGAGTCAA AGTCTCGTAC TGAACCTGAA TTCCTGTTT TTCTGTAAAC TGAGTCAAGA	6420
GTTCAGGATC GATATAGTCT CCCAGTTAT AGATAACCAA TTTTGAATA TCTCGACTAT	6480

514

TGATTTTACT ATCTAAATGA GTCGCAATTC CCCACAAGAC AAGGATAATC GCTGCAATTC	6540
CTGCTAAAAA TGAATAGATT TTTTTCATGC TTGCTCCTCC TTCTCACGAG AGATAAAGTA	6600
ATAACCTACA ACTAGGATAA TACTAAAGAG AAAGACTAGA GCAGACAGGG CATTGATTTTC	6660
TAAGGAAATC CCCTTGCGAG CACGAGAGTA AATCTCGACT GATAGGGTTG AAAAGCCATT	6720
TCCTGTTACA AAGAAGGTCA CGGCAAAGTC ATCTAACGAA TAGGTGAAGG CCATGAAATA	6780
ACCAGTAATG ATAGACGGAG TCAGGTAAGG AAGCATGATT TCCTTGAACA TCTGAAATTG	6840
ACTAGCTCCC AAGTCATAGG CCGCATGAAT CATGTCGCCA TTCATTTCTT TGAGTCGAGG	6900
CAAGACCATC AAGACCACGA TAGGAATGGA GAAGGCCACG TGACTAGATA GAACGGTCAA	6960
AAAGCCAAGT GAAAACTTGA GTTGGGTAAA GAGAATCAAG AAGCTAGCAC CAATCATAAC	7020
GTCAGGCGCA ACCATGAGGA TATTATTGAG TGATAGAAAG GCTTCTTGGT ATTTCTTACG	7080
AGACTGGTAG ATGTAAATGG CACCAAAAGT CCCGATAATG GTCGCTATCA AGGCTGATAG	7140
GAAGGCCAAG AAAAATGTCT GAGCCAAAAT CAGCATGAGT CTCCCATCTC CAAACATGGT	7200
TTCAAAGTGA GTCCAGCTAA AACCTGTAAA GCTATTCTATA TCATCACCAG CATTAAAGGC	7260
ATAGCCAATC AAGTAAAAGA TAGGCAGGTA GAGGACCAGA AAGACCAGTC CCAGATAAAG	7320
GTTGGCAAAT TTTTTCATCG TTCTCTCCTT TCCTTAGTCA CCCACATGGT GATGAACATG	7380
GTCAGGATGA GAATCACACC GATGGTTGAA CCCATACCAT AGTTGTCATT GGTTAGAAAA	7440
TTCTGCTCAA TAGCCGTCCC CAAGGTGATA ACGCGTCCC ACCAATCAAA CGGGTCAGCA	7500
TGAAGAGACT CAAACTTGGG ATAAAGACCG ACTGAACCCC GG	7542

(2) INFORMATION FOR SEQ ID NO: 59:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9223 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 59:

AAAACCAAAT TCCGGTATTT TAACCTATGC TGTAATATACC ATGAAGTCTG TCATGACAGA	60
TCAGGTCTAT AACATTAAGG TTGAGACAGA AAATGGAAAT TATGTTGGTG AAGCTAGCCA	120
TGTTTGGTTC CTTTGTACAA ATTACTTCGC TGATAAGAAA ATCTTTGAAG AAAACAAGGA	180
CGGTATGCC AACATTTTGA TTCTGAAAGA TGCCTCTATA TTCTCCAAAT TATCCGTCAT	240
TCCTGATTTA TTAAAAGGGG ATGTTGTTCG AAATGATAAT ATCGAGTATA TCAAAGCGCG	300
TAATATTAAA ATCTCTTCAG ATAGTGAATT GGAGTCAGAT GTTGACGGAG ATAAATCAGA	360

515

TAACCTACCT GTAGAAATCA AAGTCCTAGC TCAGCGAGTA GAAGTATTTT CAAAACCGAA	420
AGAGGATTAG TATATAGAGA AAGCCTTTT TAAGGCTTTT TGTATACTTT AAAAGATAGT	480
TCCTTTAACA ACGGACATTC CTTGCAAATA GTTTTACAAA AATAGTATAC TGGATTCAAT	540
GAGTTTGAAA ACGTTTGCGT AAAATTTGAA TGAATACTTT AGGAGACAAA TTGATGGAAT	600
TGAGTGCTAT TTACCATAGG CCTGAGTCGG AGTATGACTA TCTTTATAAG GATAAGAAAC	660
TCCATATTCG AATTCGAACT AAGAAAGGGG ACATTGAAAG CATCAACTTG CACTATGGGG	720
ACCCTTTAT CTTTATGGAG GAGTTTATC AGGATACAAA AGAAATGGTC AAGATAACTT	780
CTGGTACCTT ATTTGACCAT TGGCAGGTTG AAGTGTCAGT TGACTTTGCA CGTATCCAGT	840
ATCTCTTTGA GCTCAGAGAT ACAGAAGGTC AAAATATTTT GTATGGCGAT AAAGGGTGTG	900
TGAAAAATTC TCTAGAAAAT CTTTATGCAA TTGGGAATGG ATTTAAGTTG CCTTAGCTTC	960
ATGAGATTGA TGCCTGCAAG GTTCCTGACT GGGTTTCAAA TACGGTATGG TATCAGATAT	1020
TTCTGTAAAG ATTTGCCAAT GGCAATGCTC TATTAAACCC AGAAGGGACT TTAGACTGGG	1080
ATTCATCTGT CACACCTAAG AGCGATGATT TCTTTGGTGG TGATTTACAG GGGATTATTG	1140
ATCATATGAA TTACTTGCAA GACTTGGGTA TTACTGGACT ATATCTTTGT CCCATCTTTG	1200
AATCTACAAG CAATCACAAG TACAATACGA CAGATTACTT TGAAATTGAC CGTCATTTTG	1260
GAGACAAGGA GACCTTTCGG GAACTGGTGG ATCAAGCGCA TCATCGTGGC ATGAAAGTCA	1320
TGCTGGATGC GGTATTTAAT CATATTGGTT CGCAATCTCT TCAATGAAA AATGTCGTCA	1380
AAAATGGTGA ACAGTCTGCT TATAAGGATT GGTTCATAT TCAACAATTC CCAGTGACAA	1440
CTGAAAAGCT AGTTAATAAG AGAGACTTAC CCTATCATGT TTTTGGTTTC GAGGACTATA	1500
TGCCTAAGCT AAATACAGCC AATCCAGAGG TCAAGAATTA TCTTTTAAAG GTTGCAGCTT	1560
ATTGGATTGA AGAGTTTAAAT ATCGATGCTT GGCCTTTGGA TGTGGCTAAT GAGATTGACC	1620
ATCAGTTCTG GAAGGATTTT CGTAAGGCAG TTTTAGCTAA AAATCCTGAT CTTTATATCC	1680
TAGGAGAAGT CTGGCATACA TCTCAGCCTT GGCTAAATGG AGATGAGTTC CATGCCGTCA	1740
TGAATTATCC TTTATCTGAT AGTATCAAAG ACTATTTCTT ACGAGGAATT AAGAAGACAG	1800
ACCAGTTCAT CGATGAAATC AATGGAGAGT CTATGTATTA CAAGCAGCAG ATTTTCAAGG	1860
TCATGTTTAA TCTCTTGAT TCACATGATA CAGAGCGAAT CCTGTGGACG GCCAATGAAG	1920
ATGTTCAACT GGTAAATCA GCCTTAGCCT TTCTCTTTT ACAAAAAGGA ACACCGTGCA	1980
TTTATTACGG AACCAGCTA GCCTTGACTG GAGGACCAGA TCCAGATTGT CGTCGTTGTA	2040
TGCCTTGGGA ACGTGTATCA AGTGACAATG ATATGCTGAA CTTTATGAAG AGGCTGATTA	2100

516

AAATTCGGAA ATACGCGTCA GTAATCATTT CGCATGGCAA GTATAGCCTT CAAGAAATCA	2160
ACTCTGATCT AGTAGCTCTG GAATGGAAAT ACGAAGGACG GATCCTCAAA GCAATATTCA	2220
ACCAATCAAC AGAAGATTAT CTTTATAGAGA AAGAAGCAGT AGCACTAGCA AGCAATTGCC	2280
AAGAATTGGA TAATCAGCTT GTCATCTCTC CAGATGGATT TATGATTTTC TAAAACTAG	2340
TTGATGAAGA TTATGGTACA TTTCATACCT TATATAGTAT AATAAGGCTA GTTACTAAAC	2400
TTGTAAAGGA GAACTTAAAT GAATTGTAGA GGACATGAAA CAAGACAAAG AATTGTTAGA	2460
GATTTTGAAG TTCAGCCTAA AGCACATATT AAGCTGTTAG CAAATCAACA AAAACATAGT	2520
GATGCAGGAG CAACTATTGA AGATGAATAT TATGTATTTA TCGCTGAGAG TAAAATTGAT	2580
GGCAAGAAGG AAGTTATTCA GTGTTGCATG GGTGCGGCAA GGGATTTTTT AGAACTAATT	2640
AATCACAAAG GGCTACCTCT TTTAATCCG CTTGTAGGTG ATTCTCATGT AAATAATAGA	2700
CAAGAATATG ACAATACAGG GAGTGGAAAT TTATAACCTG AAAAGTGGAA TGAACTGCA	2760
AAGCAGCTTT ATAATGCTAT AATGTGGTGT ATTATTTTAT GGAATGCTAA GCCGGATACA	2820
CCTTTATTTA ATTTTAAAGA CGAAGTAATT AAGTATAAAA CATATGAGCC TTTTGAAAGC	2880
AGTATAAAAA GAGTAAATAC TACTATAAAG AATGGTAGTA AAGGGAAAAC TCTGACTGAG	2940
ATGATTAATG GCTACAGAGC GGATAACGAT ATTAGAGATG AAATTTGTAA CTTTAATATT	3000
CTGAAAAATA AAATTCGTGA TATGAAAAAC CAACAAGGAA ATACAATGGA ATCTTACTTT	3060
TAGTTATTGT TGAATTTTGG GTATTCTATA AAATATCCTA ATTGAGATTT AAATAGTAGA	3120
CTATACAATA TAGTTAAAT ATCAGTAAAA ACAACACTTT ATTGAGGTAT TGGATACGCT	3180
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TGATTTCAAG CTATTTTATA AGCATTTTGT CTTTGTAGAT AAAGGCAATT TTGACAATAA	3300
AAATCCTAAA AGGTGAATCG TTATAGATGT ATTTGTAGAT ATCGTTTGGC CATCGAAAAA	3360
ATTAATACAA GAATAAATAT TTATAGCTCT TTAGGTGACT TTTATAGAAG TAAAGTTTAG	3420
GATAGAAAAA CAAGAAATAA CGCACCATT TGGTGCGTT ATGCTTTTTT ATGCTATAAT	3480
GGATTTATAA AAATAAAGGA GTTTGCTATG ATTGGAAAGA ACATAAAATC CTTGCGTAAA	3540
ACACATGACT TAACACAAC CGAATTTGCA CGGATTGTAG GTATTTACAG AAATAGTCTG	3600
AGTCGTTATG AAAATGGAAC GAGTTCAGTC TCTACCGAAT TAATAGACAT CATTTGTCAG	3660
AAGTTTAATG TATCTTATGT CGATATTGTA GGAGAAGATA AAATGCTCAA TCCTGTTGAA	3720
GATTATGAAT TGACTTTAAA AATTGAAATT GTGAAAGAAA GAGGTGCTAA TCTATTATCT	3780
CGACTCTATC GTTATCAAGA TAGTCAGGGA ATTAGCATTG ATGATGAGTC TAATCCTTGG	3840
ATTTTAATGA GTGATGATCT ATCTGATTTG ATTCATACGA ATATCTATCT AGTAGAAACT	3900

TTTGATGAAA TAGAGAGATA TAGTGGCTAT TTGGATGGAA TTGAACGTAT GTTAGAGATA	3960
TCTGAAAAAC GGATGGTGGC CTAATGGAAA TCCAAGATTA TACTGATAGT GAATTCAAAC	4020
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AGAAAGAATT TCAAGGAAAT ATTGTTATCA TAGATGGTGA TAGTTTTCGT TCTCAGCATC	4200
CACACTATTT AGAACTGCAG CAAGAATATG GCAAAGACAG TGTAGAATAT ACCAAAGATT	4260
TTGCAGGAAA AATGGTAGAG TCTTTAGTAA CAAAATTGAG TAGTTTGAGA TACAATCTTT	4320
TGATAGAGGG AACTTTACGA ACAGTGTAGT TTCCAAAGAA AACAGCACAA CTCTTGAAAA	4380
ATAAGGGATA TGAAGTACAA TTGGCCTTAA TTGCGACAAA GCCTGAATTG TCGTATCTAA	4440
GTACTCTTAT CCGTTATGAA GAACTGTACA TTATCAATCC AAATCAAGCA CGCGCAACTC	4500
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AATAACAAT TGATATTTTT AGGAGAATAG AAATGAGAGG GTTTAATAAC AAGATAAAGT	4800
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AAGTTGATAA GACAATTTTT TTTAGTAATT TTGATAAGGT TGTTTTTTCT AGTTCAAAG	5040
AATATATTAG TTTTCTTATG TTAGCAGAGG CAATCATAAA AAATGGAATA GAAATAGTTG	5100
TAGTAACCTGA TCATAATACT ACCAAAGGTA TTAAAAAGTT ACAAATGGCA GTCTCAATCA	5160
TAATGAAAAA TTATCCGATT TATGATATAC ATCCTCATAT TTTACATGGA GTAGAAATTA	5220
GTGCAGCAGA TAAATTGCAT ATTGTATGTA TATATGATTA TGAACAAGAA TCATGGGTTA	5280
ATCAATGGTT AAGTGAAAAA ATTATAAGTG AGAAAGATGG AAGTTATCAA CATTCACCTGA	5340
CTATAATGAA GGATTTCAAT AATCAAAAAA TAGTTAACTA TATTGCTCAT TTCAATAGTT	5400
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TATTCTCTAT AAAGAAGTTG GTGTATTAAG TTTGGGACAA AAAGTTGTAG CCATGCTTGA	5580
TTTTTTATTA GCATATAGTG ATTATTCTAA AGACTTCAGA CCATTGATTA TTGATCAGCC	5640

518

TGAAGACAAT CTAGACAATC GTTATATTTA CAGGCATTTA GTTCAGCAGT TTAGAGATGT	5700
GAAAGCTCAA CGTCAAATTA TTTTAGCAAC ACATAATGCT ACAATTGTAA CAAATTCCTAT	5760
GACAGATCAA GTTGTTATTA TGGAGTCAGA TGGAGTTAAC GGATGGATTG AATCACAGGG	5820
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TCCAAGTCCT CTGTGGATAT TTGCTGCAGA TGAAACCAAT AGCGACTCCT AAGCCTGAAT	6060
ATCGTGAGGT AGGGGGGATA GGAAGGAATT AGCGAAATCA AGGTTCTACA AACAGAATCG	6120
TGACTTGAAG CCATATATAG CGGATGAGGA ACTCTAAAAT CCAATAGGT GTCGTAACCT	6180
ATATACGTAA ATTACGAGAG TAAACTAGGA AAGATGTACG GCTTATCCG TGAGCGTTTA	6240
GGACGTAGTA CAACGAATCA TGGGAGTCAG CTGAACACAT AGTATTGAAG AAATTTCTGT	6300
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TAAATATAGG ACGGTACATG CAGTGGTGT AGAGATTAGT CCTTACTTGA TTTGTGATAA	6480
CTTCCCCAAA TTTCTTCTGC TATACTTTTC TCAACTTTTA AAAATCCAAC TAAGAATTTT	6540
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CGTGACGTC ATGAAGTTT AATCTTGGCA CAGTCAGAAC GTCAAGTCAC CCAAGAGCAT	7020
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CAATCTCAAG AAAGTGT TGTCTGATAG TGAGTTGAAC CAACTAAATA TAAATATCGA	7200
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GAATTTTATC ACGATTGACA CAAACGGTTA CCAAGATTTA GTGTTTGAGT TAAAGAGGAT	7320
TGGCAATAAT ATCAACCAGA TTGCTCGAAG TGTTAATCAA TCTCAGTTAA TTTCTGGTGA	7380
AGAATTGCAG GAGTTGAAAA AAGGAATTGG TGAATTGATA AAAGAAGTTG ATAAGGAATT	7440

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ACGGAAAGAG TTACCGCAGA AAGCTTATCA AGTACATTCT CAATCCTGAG AAAACCAATA	7560
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CGCCAGAGGA TCATATCACT CCTGAACAAA TCAATCGGAT AGGTTATGAG ACTGTGAAGG	7800
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AGTATGAAGT CAAGCAGCGA CTCTATTTTT TGATGGAACA TTCTAGGGAC TTTGAGGATT	8100
TCAAAAAGAA TGCTCCGCTA CTACATGTGG AGATGGATTT CCGTCACAAG CATGCCACCT	8160
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CAGCGTCTGA ATTGAGAATC AATGAGTTGC AAGAACGAAT GTCAACCTTG AATCAAGTAG	9060
CAGAATATCT ACTGGCTTCA GTTGAAAGTA AGCAAGAAAT GAAATTAAAT CTTTCAAAAC	9120
TGAATATAAC TGAGAATATC AGTGCTAATA TTGTTGAGAA AAAATTGAAG AGCCTGGGGA	9180

520

ATCAACTGGA ATTGGAAAGG GGCAGGTATG AAAAGATGGT AGT

9223

(2) INFORMATION FOR SEQ ID NO: 60:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 6827 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 60:

TCTGCTGGCT ACCATCATCT GACTTGGGCA AGACCAAAGT CTTAGTTACA ACTGTATTCT	60
TCTCAGCATT TTCAATAACT GGCAATGCCG ACTGAAGCGT ATCTTTTCT GTTTTGTAG	120
CTGGTCCAGT TTCTTTTTC TGTCCGCAAC CAACCAGGAC AAAAAGGAAA GCTAGACTAA	180
CAAGAACTAT TTTTTCATT TCTTTCTTCT TTCTTTTGA AATTAAAATA GAATAAGACT	240
GGGAAGTGCT CCCAGCCTTG ATGTTTATAG AGCTGCACGC AAACGTGCTT CTGCATTTTC	300
TACATTACGG ACAGAGCGTG GTAGGAAGGC ACGAATATCG TCTTCCTTGT AGCCAACTTG	360
CAGGCGTTTT TCATCTACAA GGATTGGGCT CTTTAAATTT CTCGGTGTTC CCATAATCAG	420
ATTGAGAACT TCATTGACAC TCAAATCTTC AATATCCACT CCAAGGGCTT TGGCATAGCG	480
ATTTTATAGC GAAACGATGC TGGCTATTCC GTTATCTGTT TTGGTTAGAA TATCCAGTAA	540
TTCTTCTCTC GTAATTCCTT CTTTACCAAG GTTTTGTTC TTATAACTTA ACTGGTGGGC	600
ATTGAGCCAG GTTTTGTCTT TTTTACAGCT AGTACAACCT GAGACTGTAT AAATTTTAAT	660
CATGTACCTA CCCCTTTCGC TACATGTTAC TATCAGTTTA GTCTATTATA CCATAAAAAA	720
CATCCGACTT GCGACCTATT TTTAATTTTT TTTGACTTTT TTCGTCAATT TCGTACTTTT	780
TTCTTGACAA ACAACTAAAT GACTATCAAC TCTTTTGGAG CTAGGGTCAA TAATTCACAA	840
CCTGTCTCTG TAATCAGGAT ATCATCCTCG ATACGAACGC CATATTTGCC TTCGATATAG	900
ATACCTGGTT CATCGGTCAA GGCCATACCT GTCTTAATAG TTTCTGTAGA AGTCTGACTA	960
AAGTAGGGTT CCTCATGGAT ATCCAGACCA ATACCGTGGC CAATGCCGTG AGTAAAGTAG	1020
TCACCATAAC CTGCCTCAAT GATAATATCA CGAGGGATTT TGTCAAAGTC ACGGAAACCT	1080
AAGCCTGCCT TAGCTTGGTC AATCAAGGCT TGGTTAGCTT TTAGAACCGT ATTGTAAATC	1140
TCTGCCTGCT CATCGCTAAC ATGCCCTAGA TAGATAGTCC GGGTCATATC ACTGACATAG	1200
TGGTCATAGA GACAGCCGAA GTCCATGGTG ATGGCTTCTC CCAACTCCAC TGGTTTGTGC	1260
ATTGGATGGG CATGGGGTTT AGAAGAATTG ATACCGCTAG CTAGGATCGT ATCAAAAGAT	1320
AAGCCAGATG CTCCCAACTC ACGCATGCGG AAATCAAGGA AGTTGGCAAT CTCAATTTCA	1380

521

GTTTTCCTG GTTTGATAA GTCAAGCGCA TCGCGGAAAG CTTGGTCTGA GATAGAACAA	1440
GCCTTGCGAA TCGCTGCAAT CTCTGCCTCA TCCTTAATCA TACGAAGACC TTCCACAAAC	1500
TGAGTTTGTG GAAGCAAGTT CAAACCTGCA AAAGCTGCCT GCATACGGTG GTAATAAGAC	1560
ACTGAAATCT CATCTTCAA ACCGATACGA GTCAAGCCCA TGTCCTTAAC AATTCCTGCA	1620
ATGACAGCCA APTCATCACG ATCAGCCACA ATCTCAAAAC CACTGGTTTC TTGCTTAGCT	1680
GCGATGATAT AGCGAGAGTC TGTCAC TAAG ACCTGACGGT CACGACTGAT AAAGACTGTT	1740
CCGTTTGAGC CCCAAAAC AGTCAAATA TAGACGTTT TAAGATTGTT GATGATGATA	1800
CCATCTAGTT CTTTTCTTG CATTTTAGCT AGAAATGCTT GTACGCGTTT ATTCATGATG	1860
TAACCTTCCT TTCAAATAGT GTCTGTATA GCTGGCTTCG TTGGCAGCTA CTTCTTCTGG	1920
AGTTCCTGTT ACATGATGG TTCCACCACC GACACCGCCC TCAGGTCCCA AGTCAATGAT	1980
ATGGTCTGCC GTCTTGATA CATCCAGATT GTGCTCGATG ACGAGGACTG TATTGCCATC	2040
GTCTACAAAG CGAGCTAAAA CCTTGAGCAG GCGAGCAATG TCCTCTGTAT GAAGCCCTGT	2100
CGTCGGCTCA TCCAGAATGT AGAAAGATT TCCTGTCGAT CGTTTGTGGA GTTCGCTAGC	2160
TAACCTCATA CGTTGGGCTT CTCCCCAGA AAGGGTGGTA GCTGGCTGTC CCAAGGTCAC	2220
ATAGCCTAGC CCTACATCCT TGATGGTCTG GAGTTTGCCT TGAATTTTCG GAATGTGTTG	2280
GAAAAATCT ACCGCATCGT TGACCGTCAT ATCCAAGACC TGCGAAATAT TCTTTTCCTT	2340
GTAGTGAAT TCTAGGTTT CACTGTATA GCGGGTCCG TGGCAAACTT CACAAGCCAC	2400
ATAAACATCT GGCAAGAAGT GCATCTCAAT CTTGATAATC CCGTCACCTG AGCAAGCTTC	2460
ACAGCGACCT CCCTTGACGT TGAACTGAA GCGCCCTTC TTGTAGCCTC GAATCTTGGC	2520
TTCAATTGTC TGAGCAAAA GGTCACGTAT ATCGTCAAAA ACTCCTGTAT AGGTAGCTGG	2580
GTTAGACCTC GCGTCCGTC CGATAGGGCT CTGGTCAATA TCAATCAAAC GGTCGACATG	2640
CTCAATCCCT GTAATAGTCT TAACTTACC AGGTTTGTCT GAATTACGGT TGAGCTTCTG	2700
GGCAATGGCT TTTTGTAGAA TGCTGTGAT TAGAGTCGAT TTCCCTGAAC CCGACACACC	2760
TGTCACGCG ATAAATTTTC CTAGTGAAA GCGAGCCGTG ACATTTTGCA AGTTGTTCTC	2820
ACGCGCTCCT ATCACTTCAA TAAACGACC ATTTCCGACA CGGCGCTCTT CTGGTACTGG	2880
GATGACACGT TTGCCTGACA AGTACTGACC TGTGATAGAC TTGCTGTTGC GAGCCACTTG	2940
CTTAGGTGTA CTGCTGCAA CAATCTCACC ACCAAAAACA CCGGCACCAG GACCAACGTC	3000
AATCAGATAA TCAGCCTCAC GCATGGTATC TTCGTCGTGT TCCACCACGA TAAGAGTATT	3060
GCCCAAGTCA CGCATCTTT TCAGACTGGC AATCAGGCGA TCATTGTCCC TCTGGTGAAG	3120

522

ACCGATTGAC	GGCTCGTCTA	GGATATAGAG	GACACCTGAT	AGGTTGGAAC	CAATCTGGGT	3180
TGCCAAACGA	ATGCGCTGAC	TTTCCCCACC	TGAAAGGGTT	CCTGCTGAAC	GTGACAGGGT	3240
TAGATAGTTA	AGACCCACAT	TATTAAGGAA	GGTCAAACGA	TCCTTGATTT	CCTTGAGAAT	3300
GGGACGAGCA	ATGATGGCTT	CATTTTCAGA	CAAAGTTAAC	TGGCTCACCA	AGTCCAAGTG	3360
GTCAGCGATA	GACAGGTCTG	AGATTTCTCC	AATATGTGGC	CCTTGCTGGC	CGCCCACACG	3420
GACAGACAAG	GCCTGGTCAT	TGAGACGATA	GCCTTGACAG	GTTCCGCAGG	TCAGCTCATT	3480
CATGTAGAGA	CGCATCTGAG	TGCGAGTGTA	ATCGCTATTG	GTTTCATGGT	AACGACGTTT	3540
GATATTATTG	ATAACTCCCT	CAAACGGAAT	GTCGATATCG	CGCACGCCAC	CAAATTCATT	3600
CTCATAGTGG	AAATGGAATT	CCTTACCATC	TGACCCATAG	AGAATCAAGT	TCTTATCTTC	3660
TTCTGACAGG	TCCTCAAAAG	GCTTATCCAT	AGCCACTCCA	AAGACTTTCA	TGGCCTGCTC	3720
TAACATGTTT	GGATAGTAGT	TGGATGAGAT	AGGATTCCAA	GGTGCTAGCG	CTCCCTCACG	3780
TAAGGTTTTG	CTAGCATCTG	GCACTACCAA	ATCAGTATCC	ACCTCCAGCT	TGATGCCCAA	3840
GCCGTCACAC	TCACTACAAG	AGCCAAAAGG	AGCATTGAAA	GAAAAGAGAC	GAGGCTCTAA	3900
CTCTGGGACA	GTAACCACAC	AACTGGACA	GGCATAATGC	TCAGAGAACA	ACAACTCCGA	3960
GTCTGCCATG	GTGTCGATAA	TGACATAACC	TTCTGCAATA	CGAAGGGCAG	CCTCAATGGA	4020
ATCAAAGAGA	CGACTACGAA	TGCCCTCCTT	GATAACAATA	CGGTCAACCA	CGACATCGAT	4080
ATTGTGTTCG	TGCTCTTAG	ACAACTCTGG	CACTTCGGTC	ACATCATAGA	CTTCCCCATC	4140
CACACGGACA	CGAACATACC	CGTCTTTCTG	AACCTTCTCG	ATAACACTCT	TATGTTGGCC	4200
TTTTTTCTTG	CGGATGACAG	GAGCCAAGAT	CTGCAAGCGC	TGGCGTTCAG	GTAACGCCAA	4260
AACCTTATCA	ACGATTTGCT	CCACAGAAGA	AGCATTGATA	GCTCCATGTC	CGTTGATACA	4320
GTAAGGCGTC	CCCACACGTG	CGTAGAGGAG	ACGCAGATAG	TCATTGATTT	CAGTCGTCGT	4380
TCCCACCGTC	GAGCGAGGAT	TTTTACTAGT	CGTTTCTGCG	TCGATGGAAA	TAGCTGGGCT	4440
GAGACCATCA	ATGGCATCTA	CATCTGGTTT	TTCCATATTT	CCCAAGAACT	GACGAGCGTA	4500
GGCGGACAAA	CTCTCTACAT	AGCGACGTTG	TCCCTCCGCA	TAGAGAGTAT	CAAAGCCAG	4560
ACTGGACTTC	CCTGAACCTG	ACAAGCCAGT	CACGACAACC	AACTTGTCTC	GCGGAATCTC	4620
CACATCAATA	TTTTTTAAAT	TATGGGCACG	CGCCCCATGA	ATGACAATTT	TATCTTGCAT	4680
CTTTGTTCTT	TCTAGTCCAT	TATTGCTTAC	CATTATACCA	AAAAAAGTGA	GATTCTATTA	4740
CCCAAAAGGC	CGATTTTGTA	GTATAATAGT	ACAGTGTGAA	AAAACTGAA	AAATGAGAAA	4800
GGATAAGGGA	TATGAAACAA	GTTTTTCTCT	CTACAACAAC	TGAATTTAAA	GAGATCGATA	4860
CGCTTGAACC	GGGTACTTGG	ATCAATCTCG	TCAATCCGAC	TCAAAATGAA	TCATCGAAA	4920

523

TCGCCAACAC CTTGATATT GATATTGCTG ACCTTCGAGC ACCGCTCGAT GCGGAAGAAA	4980
TGTCTCGTAT TACCATTGAA GACGAGTATA CCCTGATTAT CGTAGACGTG CCGGTCACGG	5040
AGGAAAGAAA TAACCGCACC TACTACGTAA CCATCCCGCT TGGTATTATC ATCACTGAGG	5100
AAACCATTTAT CACTACGTGT TTGAACCAC TACCTGTCCT TGATGTCCTT ATCAACCGTC	5160
GATTGCGTAA TTTCTATACC TTCATGCGTT CACGTTTAT CTTTCAAAAT CTTTATCGCA	5220
ATGCAGAGCT TTACCTAACA GCCCTTCGTT CAATCGACCG CAAGAGTGAA CAAATCGAAA	5280
GTCAACTGCA TCAATCAACT CGTAATGAAG AATTGATTGA GCTCATGGAA TTGGAAGAAA	5340
CTATCGTCTA TTTCAAGGCC TCCCTCAAAA CAAATGAGCG CGTGATTAAG AAATTGACCA	5400
GTTCAACCAG CAATATCAAG AAATACCTTG AGGACGAAGA CCTGCTTGAA GACACCTGA	5460
TTGAAACCCA ACAGGCCATC GAGATGGCAG ATATTATGG AAACGTCCTG CATTCATGA	5520
CAGAGACCTT TGCCTCTATC ATTTCTAACA ACCAGAACA CATCATGAAA ACCTTGGCCC	5580
TTGTGACCAT CGTCATGTCC ATCCCAACCA TGGTCTTTTC TGCCTACGGG ATGAACTTTA	5640
AGGATAATGA AATCCCCCTA AACGGAGAGC CAAATGCCTT CTGGTTAATC GTCTTTATCG	5700
CCTTTGCTAT GAGTGTCTCG CTCACTCTCT ATCTCATCCA TAAAAAATGG TTCTAAGAGG	5760
AGTTCTCATG TCTCAAATTG ATCTACAAA ATAACTAAG AAAAACCAAG AGTTTGTCCA	5820
CATTGCTACC CAACAATTCA TCAAAGATGG GAAACAGAC GCTGAAATCC AGACTATTTT	5880
TGAGGAAGTC ATTCCCCAAA TCCTTGAGGA GCAATCTAAA GGTACAACTG CCCGTTCCCT	5940
ATACGGCGCA CCAACTCATT GGGCTCATAG CTTCACTGTC AAAGAGCAGT ACGAAAAAGA	6000
GCATCCAAAA GAAATGATG ACCCAAACT GATGATTATG GACTCAGCTC TTTTCATCAC	6060
TAGCCTCTTT GCCCTTGTC GCGCCCTCAC AACCTTCTTT GCGGCAGACC AAGCTTTCGG	6120
CTATGGATTG ATTACTCTTC TATTAGTTGG ACTGGTTGGT GGATTGCTT TCTACTTGAT	6180
GTACTACTTT GTTTACCAAT ACTATGGACC AGATATGGAT CGCAGTCAAC GTCCACCTTT	6240
CTGGAAATCT GTACTAGTTA TCCTAGCTTC TATGTTCTTT TGGTTGCTTG TCTTCTTTGC	6300
AACAAGCTTC CTACCAGCTA GCCTTAACCC AGTACTGGAT CCATTGCCAC TAGCTATTAT	6360
TGGAGCAGCC CTCCTAGCCC TTCGCTTCTA TCTCAAGAAA CGCTTGAATA TCCGTAGTGC	6420
AAGTGCAGGA CCAACACGCT ATCAAGAATA AGAAAACGAT AAAAGCAACT GCAGGTGCGG	6480
TTGCTTTTTC ACTTACTTTT TTGAGTTATA TTCAATGAAA ATCAAAGAGC AAAGTAGGAA	6540
GCTAGCTGCA GGTGCTCAA AGCACAGCTT TGAGGTTGCA GATAAACTG ACGTGGTTTG	6600
AAGAGATTTT CGAAGAGTAT TAAAGTATT CTTCTGAAAT CCCACATAGC TTTCTCTTAT	6660

524

ATTTTGTGAT AAAATAGGCT CAATCTATTT CTAGGAGGAT GAGATATGGT TTCTACTATT	6720
GGTATTGTTA GTTTATCTAG TGGCATTATC GGAGAGGATT TTGTCAAACA CGAAGTGGAC	6780
TTGGGTATCC AACGTCTCAA GGATCTGGGA CTCAATCCCA TCTTTT	6827

(2) INFORMATION FOR SEQ ID NO: 61:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11864 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 61:

CTGGCTAGTT GCATAGAGCA AAGTTGCTTC TTCATCAACA AAACCGTTCA TTCAAATA	60
GGAAAGCAGC TCATCAGGAC TCTCCAAACG AATCCCTTTG TAATCCAGCT CAACTGCCAC	120
CTCTTTCAAG GCTGCAAGAA GAAGTGTTC CAGGCCCTGT CTCTGATGGT CAAACTCGAT	180
GACTAAAGAA TGTACTTTTA GACATTGCGG ATTGTCTGAC TGGGGACTTG ATAAATATA	240
GCCTAAAGT TGATTTTCAT CCCTAGCTAG AAGAAAGGTA TCCGCACACT TACGGATACT	300
TTCTTCTAAA ATATGGGAAA GTTGCTGCTT TTCAGCTGGA AAAGACGAGG TCTGAAGTGC	360
CCCTATCTCA GGCAATCAG ACTTGCTTGC CTGAATGATC TTAATTGGAA TTTCATGGG	420
AACATCCTAT TGAACATTGC TTGTCAAGTT AGACAAGAGA CGCTCAAATG AGTATTCTATA	480
GGTTTGGATG TCTCCTGCTC CCATAAAGAC GTAAACAGCA TTGTCTATGG CTAGGAGTGG	540
AGAAACATTT TCAACAGTAA TCACTTGGTG TTTTGTGTG ATTTTGTGG CTAGGCTCTC	600
TACCTTAACG TCACCATGAT CTAATTACG AGCCGAGCCA TAAATTTGCG CTAGATAAAC	660
AGCATCTGCT TGGTTTAAAG CATGGGCAAA GTCGTCCAAC AAGGCAATGG TTCTTGTA	720
GGTATGCGGT TGAAAGACTG CTACAATTTC CTTGCTTGGG TATTCTGAC GAGCCGCATC	780
CAAGGTCGCA ATAATTTCTG TTGGATGGTG GGCAAAGTCA TCGATAATCA CTGTATCATT	840
GACAATTTTC TCAGTGAAAC GACGTTTAA ACCGGCAAAT GTTTTCAAGT GCTCACGCAC	900
CAAGTTCAAA TCAAATCCTG CTGTGTAAAG AAGACCAATA ACGGCTGTG CATTCATGAT	960
ATTGTGACGA CCAAAGGTTG GAATGTGGAA TTGCCCAAG TTTTGTCCAC GGAAATGAAC	1020
GGTGAAGGTT GAACCAGTTA TTGAACGAAG AAGATCACTA GCTACAAAGT CATTGCCTTC	1080
AGCTTCAAAA CCATAATAAT AAATTGGTGC ATCAGACGTA ATCTTACGCA ATTCAGCATC	1140
TTCAACCATAG AAAAAAGAC CCTTGGTGAT TTGTTTGGCA TAGTCGTAA AGGCATTAAA	1200
AACATCCTCG AGACTTGTGA AATAATCTGG ATGGTCAAAG TCAATGTTGG TGATAATAGA	1260

525

GTATTCTGGG TGGTAAGGCA TGAAGTGACG CTCATATTCG TCAGATTCAA AGACAAAATA	1320
TTTGGCATTG GCCGAACCAC GACCTGTCCC ATCTCCAATC AAGAAGCTGG TATCTGTAAT	1380
GTGAGACAAG ACATGAGACA ACATACCTGT CGTTGAAGTT TTTCCATGTG CTCCTGCTAC	1440
TCCCATGCTA ACAAAGTCAC GCATAAAGCT ACCTAGAAAC TCATGGTAAC GTTTGTAGCT	1500
GATACCATT TGGTCCGCAT AGGCAATTTG GACGTTGTTA TCTGGACGAA AGGCATTTC	1560
AGCGATAATT TCCATATCAC CGTCTAGATT TTTTTCATCA AAAGGAAGAA TGGTAATTCC	1620
TGCCTGCTCA AGACCGCGTT GGGTAAAGTA GTACTTTTCA ACATCTGATC CCTGAACCTT	1680
GTGCCCCATC TGGTGCAACA TCAAGGCCAA GGCACATC CCTGATCCCT TAATTCCGAT	1740
AAAATGATAT GTCTTTGACA TGTTCCTCC CCTATTCTGT CATTCGGTC AGATTCAACT	1800
CTTGGGCAAC CCGACGTTCT TGTTCGTTT GTTACTTTT TTTATTGTAG ATTTGGCTCT	1860
TCTTTAGAAA ATCATAATTG TTTTCTTTG GAGCAGGTGC TGACACTTCT TCATTCTTGG	1920
TAGGGATAGA ATGAACCTCT TCCGCCAAGA TATAATGAGA CTGGGTCAAT TTTGGCTAT	1980
ATTTGACAAA TTCACCAGGA TTTTCCTTTT GGAAAGGAGC TGTCGGTTGA TTGCCCTGTC	2040
TAACTAGACT GGGCTGAGAA TGACGTCTCG CAAGGCTGAA ATCCTGAGTT AGGTAGTTAG	2100
CAGAGCGTTT CTTTTTCAAG TCCGCACGCG CTTCTTCACG CGCCACCTCC GCATAGCTCT	2160
TTCTTCTTTT TTTAACCCCT AAAGGAGCCT TTTTAGGTTT TTCGACTTGC TTTCAATCG	2220
GTTTTACTGG TTTTCTTCA GCAATAGGAG CCCATTCTAA ATAATTTTA TCTCGATACT	2280
CACCCTTGAT ATTACTGATC AGATCAGACT CATCATAGAG ATTCATGACT GGCATTTCAG	2340
TCAACATGAC CTCGTCATCT GACACCAATG GAAATCGTTC TTGTTTCATT TTCTATTTCC	2400
TTTCAACACT TCATTATAGC GTATTGTCTT GATTTTTCAA GTGCTGGCTT CAGAAATTCC	2460
CAAAATTTCT CTAATTTCTG CTAGGGTCAG ACTACCACGT GACTCTGTGC CGTCCAATAC	2520
TTGTGACACC AGATGTTTCT TTTGTTCTTG GAGTTCCTGA ATTTTTTCTT CAATGGTTCC	2580
CTTGGTCACC AAGCGATAGA CCTCAACCGT TTCTTCCTGA CCCATCCGAT GGGCACGGCC	2640
AATGGCTTGC GCTTCCACCG CAGGATTCCA CCAAAGGTCA ACCAAGATCA CTGTATCTGC	2700
ACCTGTCAGG TTCAGACCGA CCCACACAGC CTTGAGGGAA ATCAGAAAGG CATCTCTTTC	2760
TCCTTGGTTA AAGGCCTTGG TCATGTCTTG TCTTTCCTTG GCTGGGGTTG AACCCGTAAT	2820
TTTAAAGGAA GTCAGGCCCA AGTCTGGCAG TTCTTGTTCA ATTTTTTCCA ACATTCCCTT	2880
GAACTGAGAG AAAATCAAGA CACGGTGTCC GCCGTCTGCC ACCTGTACCA GTAGGTCTCG	2940
GAGACTATCT AGTTTGCCGC TGGCTCCCTG ATAATCTTCC ATAAACAGGG CAGGAGTGTC	3000

526

ACATATTTGA	CGCAAGCGCA	TCAAACCAGA	TAAAATTTCC	ACACGACTTC	GCTGAAATTC	3060
CTGTCTGAC	ACTTGAGCCA	GATGGTCTCG	CATCTGTTGT	AACTGGGCAA	GGTAAATAGC	3120
CTTTTGCTGG	TCTTCCAGTT	CATTTTATA	AACCACCTCA	ATCAAGTCTG	GCAATTCAGT	3180
CAGAACTTCT	TCTTTCTTGC	GTCGCATCAC	GAAAGGCTTG	ATAAACTGAG	CCACTCGCTC	3240
TGCTGGCAAT	TTCATAAATT	CTTTCTTGCT	TGGCAAAAGT	CCAGGCATGA	CGATTTGGAA	3300
AATAGACCAC	AACTCACCCA	GATGGTTTTC	AATCGGAGTT	CCTGACAAGG	CAAAGACCGA	3360
CGGCACCACA	AATTGTCTCA	AGGTCTGGGC	AATCTTGGTC	TGGGCATTTT	TCATGACCTG	3420
AGCCTCATCT	AAGAAAAGGA	AGTCAAAGGC	CATCCCTTGA	TAAAACTCAC	TGTCCTGACG	3480
GAAGGTGGCA	TAGCTAGTCA	CATAGATTG	ATGGCTCTCG	GCAAGAATCT	CCTCACGACT	3540
TGCTTTCAAA	CCATGAACAA	CAGTCACATC	CAACTGTGGA	GCAAATTTCT	GAAACTCATC	3600
TGCCCGATTG	TAAATCAAAC	CCGACGGAGC	GAGAATCAAA	ACCCGACTTT	CTTTTGTAC	3660
TTGACTAGTC	AAAAAAGCAA	TGGTCTGAAG	GGTTTCCCA	AGTCCCATAT	CATCAGCCAA	3720
AATCCCACCA	AAACCATAAT	GATGGAGCAT	CTGCAACCAG	CCAATTCCTT	TTTCTTGATA	3780
ATCTCGCAAG	TCAGCCTTGA	CCTGAGTTGC	TTGCAAAGGA	AAGTCCTCTG	GATGCGTCAA	3840
ATCCTGGGCC	AGATTCTGGA	ATTCTTGTGA	AAAAGAAACA	CGGTCTCGCC	CTTCAAAGAG	3900
ATGAGCTAAA	CTGTAGGCCA	AGGATTTCCG	AGCCTGCAAG	GTCCCATCTT	TTAATTCAAA	3960
TTGCCCCAGT	TCCTGTAGAT	TTTGGCGAAT	TTTCTTGGTT	TCTTCATCGA	AAAAGTAAAC	4020
TTGATTAGAC	GAATCAATAT	AAAAATCCTG	ATTGGCAACC	AAGGCCTGCA	TGGCTTGGTC	4080
GATTTCCTCC	TGGACAATAT	TTTGAAAATC	AAACTGGATT	TCCAAGAGAC	CTCCCTTGGA	4140
GGCAATCTGC	ACCTGAGGAC	TCGCTAGGCT	ATAAAGCTCT	TCTAGTTTAT	CTGATAGGTC	4200
AACATGCCCG	AGTTTTTCAA	AGACTGGAAT	GATATCATGA	AAAAAATGAT	AGACAGACTC	4260
CGCTTTTAAG	GCCTGACGCC	AAGATTGAAA	ATCGGCCTCA	AAGCCCCGAG	CCAAACAGAC	4320
TTGGAATAAT	CTTCTTCTA	AGTCTGCGTC	ACTTGAAAAG	GGTAATTCTT	CTAGCTCTTG	4380
TCGGCTAGAT	ACCTGTCTAT	TTCCATAATC	AACTGAATT	TCTAAACGAA	TCCGATTATC	4440
TTCTTCCTCG	TCAAAGTAAA	AAGAGGGCGC	AAAAGTTTGT	ATTTGTAGAC	GTTCTGGAGC	4500
TGAAACGGTG	CCCATCTGGA	TAAAAAGAGT	CAGACAGGAG	GCCAATTTGT	CTCGATCACT	4560
GCTATCAAAT	TGCAGGTATT	TCTTTCCTTG	TTGACCCACA	GGTAACGCTT	TAATTTCTCT	4620
GAGAAGACGC	ATCTGCTGGT	CTGTAAAAA	ATAAACCTGA	CCTTTATGGA	AAAGTACTGC	4680
TCCTTGATAA	AAGACATTGA	CCCTAGGACT	CTCACTGATT	TCCATTTCAA	AATAATCCGA	4740
GTATTCTGTT	ACTGTAAAGG	CAAATAGATT	GGCATCAGCA	TGCATATCCT	GAAAAAGCAG	4800

GGTTTGGTAG CTATCCACTT GATGGTCAAA TTGAAAATGG GGCAAGGCCA TCAGTAAATT	4860
CACACCCTGC TCAAAAAAGG TCAGAGGGAA AAAGAGGTGC CGACCTTGGT TTTGGAAAAA	4920
GAGGTCTGGA ACCAGCCCTT CCTCCGTTAG TCCGTGCAAG AAAGTCAAAA GTTCTTGGCT	4980
GGCATCATCA AAGGCTTCCC AAGAAAGAGA CTCCTCATAA ATCTTGCCAA TCATATACGA	5040
CTTTCTCTGC TCGACAATCC TTAAAAAAG TGAATATCC CGAATGACAT AGTATTTTG	5100
GCTATTGATT TGGCCGATTC TCAGAGTCCA CAAGATATGA TTGGTTCCTG CTTCCACCTG	5160
ACCCACAGCT GATAACTCAT AGGCGCATTC TGATTTTGA GATAAAATTC GATCCAAAAA	5220
CTTGCCACCC AAGGTCACCT TGGTTTCAAC AGCCTCTTT TCTTCATGAC CTTCTTCCAG	5280
ACTCCACAAG ATTTCTGAC CACGCTCATC ATTTTTCAGA AAATGCTCTA GCGCTGCCAA	5340
ATGCACACAG TAGCCCTCT TTTGAAAAA ATCACAGGCA CAAAAACCA AATCATCCTC	5400
TAACTATAG CGCAGTTCTT CTTCTGCAAC GCGAGCGTAG AGCCGATTGT TCTTTCCCTT	5460
GATGATATCA ACCTTACCAG TTTCATAAAG GGCAACACCT TCGATACGAA TTTTCCCCGG	5520
AATCAATTTA GCCATATTTT CACCTTTACC TTATCTTTT ATTATACCAT ATTTTCGCCT	5580
ATGAAAATAG CCTTCTAGGA AGACTTTTCT CCTAGAAGGC TGGATTTTA ACGTTTGGCA	5640
AAAGTAGCCA CAATCCGCTG ACAGACTTCT TGCAACAGAG ATTTGGGCAT AGCTATATTG	5700
ATGCGGGCAT GGAGACTTCC TTCCTCTCCA AAATCCAAAC CACGGTTGAG GATAACCTTG	5760
GCTTCATTTC TCAACAATC TTGCAATGTT TCATCAGTCA GGTCATAAGC TGAAAAGTCA	5820
AGCCAAATCA AGTAGGTACC TTGCGGTTTC ATGACCTTGA TTTTAGTCTC TTTTCCAAAT	5880
AGATCCATCA CATAATTGAT GTGGTCTTCA AAGACTTGCT TGAGTTCCTC TAGCCAATCT	5940
TTACCGTATC GATAGGCAGC TTCTGTCGCC AAATAACCCA AGCCTGAAAT TTCATGCTGA	6000
TTATTGGCCA ACAGGCGTTT CTGGAAAGCC AGTCTCAACT TAGGATTTTC AATGACTGCA	6060
TAGGAATTTT TTGTTCCAGC AATATTAAAT GTTTTAGTGG CACTGCTCAA GACGATAGCA	6120
AAATTTTGA AGGCAGGATT GATGGTATG AAAGACTGGT GTTTGTGACC AAAGAGGGTC	6180
AAATCTTGGT GAATCTCATC CGAAACTAAC AAAACACCGT GTTTTGGCA GAGTTGGCCA	6240
ATCTTCTCCA AACTTCTTT TTCCCAAACA CGTCCACCAG GATTGTGAGG GTTGCAAAGA	6300
ACATAGAGTT TAACCTCCTC TTCCACCAAA TCCTTTTCAA GTTGGTCAAA GTCAATCTCA	6360
AACAGACTAT CCTTTCCAC TAAGGAATTA GTAATCAATC TACGATTATT CAACTTGACA	6420
CTGCGAGCAA AGGGTGGTA GACAGGCGTG TTAATTAAAA CCGCCTCGCC TTCTTTTGTA	6480
AAGGTTTGAA TAGCTGTGA GATGGCTGGT ACCACACCCT CGATAAAGAC AAGAGCCTCT	6540

528

TTGTCAAAGT	TGTAACCGTA	TTGTGTAGCT	TCCCACCTTT	GAACTTCCTT	AATTAAGTCT	6600
TCACTGGCAT	AGGTATAACC	ATAAACCAGT	TGGTCTGCGT	AAGTTTGAC	GGCTTGGCGG	6660
ATTTCAAGCA	AGACCACAAA	GTCCATATCC	GCTATCCAAG	CTGGTAGAAC	TTCATATCC	6720
GTCTCTGTTT	CTTTCCATTT	ATAGGTATGG	TGCCCTAAAC	GGTTGGGCAG	GCTTGTAATA	6780
TCATATTTTC	CCATCTTTGT	CTTATCCTTC	TATGGCTTGG	CGCAAATCTG	CAATCAAATC	6840
TCTAGCATCC	TCAATCCCAA	TAGACAAACG	CAAGAGGTCA	TCTGTCAAAC	CATAAGAATG	6900
GCGTACCTCT	GCTGGAATAT	CAGCATGAGT	TTGAGTCGTT	GGATAAGTAA	TAAGACTTTC	6960
CACTCCACCC	AACTTTCCG	CAAAAGAGAA	GACCTTGAGA	CTGTTCAAAA	TATGAGGAAT	7020
GCGTGTTC	TCGGCTACTT	TAAAGGAAAT	CATGCCTCCA	CGACCAGTGT	AGAGAACTTC	7080
CTTAACTGCT	GGAGAATCCT	TCAAAAAGGC	AACCACTTCT	TGGGCGTTAG	CTGTTGAGCG	7140
CTCCATACGA	AGAGACAAGG	TCTTGAGACC	ACGAAGCAAC	TGGTAGCTGT	CAAATGGAGA	7200
CAAGACTGCC	CCTGTTGTAT	TAAGATTGTA	AAAAAGCTTC	TCGTATAGTT	CTAAACTATT	7260
GGTCACAACC	ACTCCAGCCA	AGACATCATT	GTGGCCTGCT	AGATACTTGG	TTGCTGAATG	7320
GAGAACGATA	TCTGCTCCAT	CTTCAATCGG	ACGTTGGTAG	ATAGGGCTAT	AGAAGGTATT	7380
GTCCACCACC	ACTTTGGCAC	CCTTAGCATG	AGCCAATTTT	GCTAGTTTTT	CGATATCAAA	7440
TTCCAACATC	AAGGGATTGG	TTGGGGTTTC	GATATAGAGA	ACATCCACAT	CCTTTTCTAA	7500
CTCGGCAATC	AACTCTTCTT	CTGTATTGGC	ATAGGTAAAA	TGGAATGAC	CTTCCTGCTC	7560
CACTTGGTTA	AACCAGCGAA	AAGAACCACC	GTAAGATCA	CGCACTGCCA	AGACCTTACT	7620
TCCTACTGGA	AAGACGCTAA	AGGCCAGTAC	AATAGCTGAC	ATCCCTGAGC	TAGTCGCTAG	7680
GGCATAGTCT	GCTGACTCAA	TAGCCGCCAA	GACTTCCTCA	GCCTTACTAC	GAGTTGGATT	7740
TTTAGTGCGC	GTATAGTCAA	ACCCAGTAGA	TCGACCAAAC	TCTGGATGCT	GATAGGTCGT	7800
TGAAAAATGA	AGTGGTGTC	CCAAAGCACC	TGTTGCCTCA	TCAGACTTGA	TCCCTGCTTG	7860
TGCTAAAATT	GTGTTAATGT	GTAATTCCTT	GCTCATACAA	TTCTCCAAA	TCTATAGTAA	7920
CTATTGTACC	ACTTATTTTG	TATCCTTCGT	TTTCTTGTTT	TCAAGAGCTA	GTTATAGTTT	7980
CAAACTATAT	AAAAAGGGAG	TTTTTCCTGC	TCCCTTTAAT	AGACTATAAA	ATGGTGAATC	8040
TCAAAAGACA	CCTTCACTCT	ATCATTTGCT	CCTGCACAAA	ACGAGCATAA	CGCTCATGAT	8100
TTTCCAGTAG	TTCTTATGA	GTTCTGAGC	CAGTGATTTT	CCCCTCCTCT	AAGAAGAAAA	8160
TACAATCCAC	ATCTTTTACC	GTTGACAAAC	GATGCGCTAT	AATCACAACC	GTCTTCTCCT	8220
TTAGTACAGA	ATAGAGGCTA	CTGATAATCG	CATACTCAGA	ATCCGCATCA	AGATTAGCAG	8280
TGGCTTCATC	AAATATAAGA	ATTTCAAGCAT	CTTTTAAGTA	GGCTCTAGCT	ATTGAAGTCT	8340

TTTCGTTTCGC CCCCTGACA AGAGTCGTCC GCGTTCACCA ACTTCAGTAT CTAGTCCCTC	8400
TTTCATGGAG CGAATCTCAT CACCTAGTGA TACTAAGTCT AGCACTTTCA TCAATTTCATC	8460
ATCAGTTACT AAGCGATTCA AACCGAGACA AAGATTGTCA CGAATACTGC CAGATAAGAC	8520
TGCATTATTT TGTGAAACCC AAGCGATTTT ACTTCTCCAT TCTTTTAAGT TAAAATCATA	8580
TATACTTGAT TGCTCCATTA GAATATCTCC TGAAAGCGGT TTATAAAACC GCTCTAACAA	8640
ACGCACAATC GTTGATTTTC CTGATCCAGA TGGTCCAACA AAAGCAATTT TTTGCCCCTT	8700
GAAATTGAA CAAGTAATAT CCTTTAAGAC AGGTCGATT TCATCATAAC CAAAATAGAC	8760
ATGGTTAAAA TTCAACCCTC GTCCTGATAC CGATTTTCCT CCCTCAAATT TTTCTTTAGG	8820
AACTGCAAGC AAGTTCTCCA GTGCAACTGA AGATCCCTTG CTCCTAGAAT AAACAGTTAC	8880
AAAATTAGCT ATATTACTAA TAGGATTAAG TAATTGAAAG AGGTAAATCA AAAACGAAAC	8940
CAAGGTTCCC ACAGATATAT ATCCTGCGCT GACCCGATAA CCCCATAGG TTAGCATCAC	9000
AGCTATAGTC GCAAAGATAA ATAAGAGAGC AAACGGGGTC TCAAAGAAG TAACCCTATC	9060
TGATTTCACT GAATTGTTTT GTACCTTTC AATACAATTA TCCAAAACAT CCTGTACACT	9120
TTTCTCTGCT TGTTAGTCT TAATTAATTC ATGTTCTTGA ATCTTTTCAG TCAATTGCCC	9180
TGTTAAATTT CCTCCTGTAA ACGACGACTA TACTTTTCAC TGATATTGGA AAGGGGCAAG	9240
ATAATAACA TCATACAAGG AAGAGTGATG AATAAAAGTA GAGAAAGATT CCAATCAAGA	9300
CTAAATAAGA CTACAATGGA ACCAAGTACC ATAACATAAC TCAGAATAAT ATTTGGGAAA	9360
GTCGTAATTA AAAACTCAGC AATGACACTC GTGTCAATGA CAATGGCAGA AGTCAACTCC	9420
CCACTTTGGC TCTTATCAA GAAGGATTC TCTACATAAA TCAACCCCTC TATCACTTTT	9480
TTCTGTATTT TTGCTATCTT TTTTTCACCC GATTGACTAA ACAGATAGTA ACCAATAGAA	9540
GAAAACAAGG CTTGACCAAT AAAAATCAAA AACGATTGAA ATACTTTGGA GCCTATATTT	9600
TCAATAGAAC TCCCATCTAT TAAATCCTTT AAGATAAGGG GAAGCAACAA AGCAAGTAGA	9660
CTAGACAGAA CAAGTAAGAA ACTCCCCATA ATCACCTTAG TATCTACTCT TAATAATTTT	9720
AATTTCATAA ATACTCCTTA TAATATTTCA ACGGATAAAG TCGGGAATAA CTCAATTTGA	9780
GGATAAAATC TAATAAATCT TCCTATAACA AAACGCATAA CATCTAGGAT TTTATATACC	9840
TGATATTATG CGTTTTTAAG CACAAAGACT TCTTACACAA ACTTATCTAC AATTAGATTT	9900
TATTTGACAT GTTTTGCCAA TTCTTCTTGG GCTTTTTTAT TGGATTCTTC TTTTCTTTC	9960
AACCATTTTT CTCTGGCTTT TGCATATTCG TCTGTTGTGA CAATCTTATC TTGTACTTTG	10020
AGGTATTTAT ATGATTCAAC CCCTTTTGTA CCGTTAAAC CATAGGCAGC AGCAAATGGT	10080

530

ACGGTTCCTC TCAATGATGG TGTTCCTCCA CGCGAAACAC TTGGAAGAAC TAAAGAACTA	10140
TCAATCAACC AAGCTTGAAT ATCAGCATAT TTCTCATAAC GTTTGGCCGG ATCTTGCTCT	10200
TTATTAGCTT CTTCACACAT TTGAGTATAG ACATCCAGTC CAACTGCCTT AGCCTTGTC	10260
TTGGCCTCAC CAGGCTCTAG TCCAAGATTT TGCAGAAATC CTCCACTATT AGTATTAAAA	10320
ATATCGAGAT AGGTGACGG GTCTTGATAA TCAGGTCCCC AACCGCCATG ATATAAATCA	10380
TAATCTTCT GAGCAGCTGT TTGAGCAAAG TAGCCTGAAC TGTCAAACTC ATCTGATGTT	10440
AATTGCTGAA TGTCATCAC TACATTATCA GAACCTAAAA CAGATTCAAT TGATTGTTT	10500
ATAGAACTAA CTCCTGTAT GCCTACTTTA TCTGTTACTT CCACAGTCTT ATCCAAGTGG	10560
ATTGGGAAT GAACACCTT TGCTTCGAGT TCTTCTTAG CTCCGCAA CTTAGCCTTG	10620
GCTTCTCAG GATTGTAGTA AGGGTCTGA CCATCCGCAA AGTTGATACC TTGCCATTCC	10680
TTACCATAGT TGACCATCT AGAGGCTACA ACTTCACCAA AGTCTTTTCC CTTGATACTG	10740
ACAAAGTTTG GAGGAACCAC TAGGTTACGC AAAATCTTTG TTGCACCTT TTTCCCTTCA	10800
GACTGAGCCC CATAAGATGT TCTGTCAAAA GCAAAATGA TAGCCTGACG GAAGTTTTTA	10860
TTGAGAACTG CTTCTGAGT CGATTCTTT TCAATGTCAC TTGTTTGA AGTATAATTG	10920
TAAGACTTCC TATCTAGGTT AAAATTAAAG AAATATGAAG TTGAATTTG CATACTATAG	10980
ATGATATTGT TTTTGTATTT TTCTTTAATC CCTTCATAGC TGGAGCTGTT AGGAAAAAGA	11040
CGAGCCGTAG TATAAGCACC AGCTGTAAAA TTACGTTCCA GTGATTCTTG GTCGCTACCA	11100
TCATAGTAGG TCAATTCAC ATCGTCTACA AAGACATTCT TAGCATCCCA GTAATTAGGG	11160
TTTTTCTTAT ATTCAATAGC AGATTTTGA ACAAGTGCTT TCATCAAGAA AGGTCCATTG	11220
TACAAAATAC TAGATGGATC CGCCTTCCCA AAATCATCCC CTTTGTATTT CAGGAAATCT	11280
GCATTAAACAG GAAAAAGTAT CGTTGCAAGT GTTTTGAAT TCCAGTAAAG TTCTGGTTTA	11340
ACCAAAGTAT ATTGAACCGT TTGGTCATCA AGTGCCTTGA CACCGACAGT TGAAAAGTCG	11400
CTTGTTTTAC CAGTGATATA GTCATCCAAA CCAGCAACAG AGTCCTGCAC TAGATACAAG	11460
GCTTCTGATT TTTTATCAGC TGCATATTGC AAACCTGTCA CAAAATCCTG GGCAGTTACA	11520
GGCGCATATT CTTCTCCCTC AGAAGTAAAC CACTTGGCAT CCTTACGAAG TTTGTAGGTA	11580
TAGGTCAAAC CGTCCTGAGA AACAGTCCAA TCCTCTGCTA ATGATGGAAT AATATTCCCA	11640
TATTGGTCAT TTTCTAATAA CCCGTCTACC AAATTGCAA CAATATCGGA TGTGCTGCG	11700
CGGTTTTCTG CTAGATAGTT CAAGCTAGAT GGATCACTTG AATAACATA GTTGTAGGTT	11760
TTTGACGCG TGCTAGAATT TCCACACGCG CTCAATAAAA CTCCTGTACC CAGGACAAGA	11820
CCTGCCAAGG TTAGATATTT GCTCTAGAC TTTTCAATT CCGG	11864

531

(2) INFORMATION FOR SEQ ID NO: 62:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2412 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 62:

TAACTGCACT AAACATAATA TAAGGAGAGA AAATGTCTGC AATAGAACGT ATTACAAAAG	60
CTGCTCACTT AATTGATATG AACGATATTA TCCGTGAAGG GAATCCTACT CTACGCGCGA	120
TTGCTGAGGA AGTCACTTTC CCCCTATCTG ACCAGGAAAT CATCCTAGGC GAAAAGATGA	180
TGCAATTCCT TAAACATTCC CAAGATCCTG TCATGGCTGA AAAAATGGGA CTCCGCGGTG	240
GTGTTGGACT GGCTGCTCCC CAGTTAGATA TCTCAAAACG CATTATCGCT GTTTTGGTAC	300
CTAATATTGT TGAAGAAGGC GAAACTCCAC AGGAAGCCTA CGATTTGGAA GCCATTATGT	360
ACAATCCAAA AATCGTCTCT CACTCTGTTC AAGATGCTGC TCTTGGCGAA GGAGAAGGTT	420
GCCTGTCTGT TGACCGTAAC GTGCCTGGCT ATGTTGTTCTG CCATGCCCGC GTTACTGTTG	480
ACTACTTTGA CAAAGATGGA GAAAAACACC GTATCAAACCT CAAAGGCTAC AACTCCATTG	540
TTGTTCAAGCA TGAATTGAC CACATTAACG GTATCATGTT TTACGATCGC ATCAATGAAA	600
AAGACCCATT TGCAGTTAAA GATGGTTTAC TGATTCTTGA ATAAAGAAAA TCCCGTTGCA	660
AGACGGGGTT TTGTGTTATA ATAGAGGCAT GAAAACAAAT GATATTGTCT ATGGTGTCCA	720
CGCCGTTACC GAAGCCCTCC TTGCAAATAC AGGAAACAAA CTCTACCTCC AAGAAGATCT	780
CCGAGGTAAG AATGTTGAGA AAGTCAAGGA ACTAGCTACA GAAAAGAAGG TGTCCTTTTC	840
TTGGACATCA AAAAAATCTC TCTCTGAGAT TACTGAAGGT GCTGTTTCATC AAGGTTTGT	900
TCTACGAGTG TCTGAATTTG CCTATAGCGA GCTAGATTAC ATCCTTGCAA AAACACGCCA	960
AGAAGAAAAT CCACTTCTAT TGATTCTAGA TGGTCTAACC GATCCCCATA ATCTGGGTTT	1020
TATCTTGCGA ACAGCCGATG CGACCAATGT TTCAGGTGTC ATCATTCCCA AGCACCCTAC	1080
TGTCGGAGTA ACTCCTGTCG TTGCCAAAAC AGCCACAGGT GCTATTGAAC ACGTtCCAAT	1140
TGCCCCGAGT ACCAACCTCA GTCAAACCTT AGGATAAACT TAAGGATGAA GGTTCCTGGA	1200
CCTTTGGAAC GGATATGAAC GGTACTCCTT GCCACAAGTG GAATACAAAA GGGAAAATCG	1260
CCCTCATCAT TGGAAATGAA GGAAGAGTA TCTCTAGCAA CATCAAAAAA CAGGTTCGATG	1320
AAATGATTAC CATTCCGATG AATGGACATG TTCAAAGCCT TAATGCCAGT GTTGCTGCGG	1380

532

CCATTCTCAT GTACGAAGTT TTCCGAAATA GACTATAAAA AAGTTTCCAG TCATCTGATT	1440
GGAAACTTTT TTATGATTAA CTATGTTCTG TAATGAATTT ATAGGCTTCT TGACCAGCGA	1500
TAGCTCCATC TCCAACCGCT GTTGTTACTT GCGGAAGGTC TTCAAGCGA ACATCTCCAA	1560
CTGCAAAGAT ACCGTCGACT GCAGTTTCA TGTGGTTATC TGTCACAATC CATCCTGCCT	1620
GATCTTGGAT ATTCAATTCT TTAACAAAAT CGCTAAGAGG GTCCAAACCA ACATAGATAA	1680
AGACACCACC GAAGGCTTGT TCTGTCACCT GACCTGTTTT CACATTTTCA AATACGACTG	1740
ATTCTACTCG GTTTTCACCC TTGATTTCCC TTAACACAGA ATCCCAGATA AAGCTGATTT	1800
TTTCATTTCG AAAGGCGCGA TCTTGTAATA CCTTTTGGGC ACGAAGTTGG TCACGACGGT	1860
GAACAATGGT AACAGTCTTA GCAAAACGAG TCAAGAAGAG GGCTTCTTCA ACAGCTGAAT	1920
CTCCACCACC AACTACCAAT AAATCTTGGT CACGGAAGAA AGCACCATCA CACACAGCAC	1980
AGTAAGAAAC ACCCAGACTG TTCAGTTCTT CTCTCTCCAG CACTCCCAA GGACGGTGT	2040
TAGAACCAGT TGCTACGATA ACTGTACGTG TTTCATATGT TTGGTCATCA GTCATCACTT	2100
TCTTAAATC ACCATGGCTT CGACATTTT AACATAACCA TAAATGTGCT CAACACCAAG	2160
ATTTTCAAGT GGTTCAAACA TCTTTTCAGC CAATTCAGGT CCACTAATAT TAGCGTATCC	2220
TGGGTAATTT TCGATATCAG ATGTATTATT CATCTGACCA CCTGGCAGAC CACCTTCAAT	2280
CAAAGCTACT TTTAGATTGC TTCGAGCAGC ATACAAGGCC GCAGTCATCC CTCGAGGTCC	2340
AGCACCGATA ATAATAGTAT CGTACATATA GATTCCTTCT TTCTTGGTGT AACTATCTTT	2400
ATTCTAACTC TG	2412

(2) INFORMATION FOR SEQ ID NO: 63:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7760 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 63:

CCGATTTGGT GGAATTTTGT TCTCATCATT TAGAAGGTGT TGCAAGAGCA GAGTTTACCT	60
TGGTGCTTCA TACCAAATG GGAGAAGCCT CTGTTTGGC AAATATTGTA GATGTAAACA	120
AGGATGAATG GATTTTAGGA ACAGTTGCTG TGCCAATAC CTTATTGGTT ATTTGTCGAG	180
ATCAGCACGT TGCCAACTC ATGGAAGATC GTTGCTAGA TTTGATGAAA GATAAGTAAG	240
GTCTTGGGAG TTGCTCTCAA GACTTATTTT TGAAAAGGAG AGACAGAAAA TGGCGATAGA	300
AAAGTTATCA CCCGGCATGC AACAGTATGT GGATATTAAA AAGCAATATC CAGATGCTTT	360

533

TTTGCTCTTT CGGATGGGTG ATTTTATGA ATTATTTTAT GAGGATGCGG TCAATGCTGC	420
GCAGATTCTG GAAATTTCTT TAACGAGTCG CAACAAGAAT GCCGACAATC CGATCCCTAT	480
GGCGGGTGTT CCCTATCATT CTGCCCAACA GTATATCGAT GTCTTGATTG AGCAGGGTTA	540
TAAGGTGGCT ATCGCAGAGC AGATGGAAGA TCCTAAACAA GCAGTTGGGG TTGTTAAACG	600
AGAGGTTGTT CAGGTCATTA CGCCAGGGAC AGTGGTCGAT AGCAGTAAGC CGGACAGTCA	660
GAATAATTTT TTGGTTTCCA TAGACCGCGA AGGCAATCAA TTTGGCCTAG CTTATATGGA	720
TTTGGTGACG GGTGACTTTT ATGTGACAGG TCTTTTGGAT TTCACGCTGG TTTGTGGGGA	780
AATCCGTAAC CTCAAGGCTC GAGAAGTGGT GTTGGGTAT GACTTGTCTG AGGAAGAAGA	840
ACAAATCCTC AGCCGCCAGA TGAATCTGGT ACTCTCTTAT GAAAAAGAAA GCTTTGAAGA	900
CCTTCATTTA TTGGATTTGC GATTGGCAAC GGTGGAGCAA ACGGCATCTA GTAAGCTGCT	960
CCAGTATGTT CATCGACTC AGATGAGGGA ATTGAACCAC CTCAAACCTG TTATCCGCTA	1020
CGAAATTAAG GATTCTTTC AGATGGATTA TCGGACCAAG GCTAGTCTGG ATTTGGTTGA	1080
GAATGCTCGC TCAGSTAAGA AACAAGGCAG TCTTTTCTGG CTTTGGATG AAACCAAAAC	1140
GGCTATGGGG ATGCGTCTCT TCGTTCCTG GATTCATCGC CCCTTGATTG ATAAGGAACG	1200
AATCGTCCAA CGTCAAGAAG TAGTGCAGGT CTTTCTCGAC CATTTCTTTG AGCGTAGTGA	1260
CTTGACAGAC AGTCTCAAGG GTGTTTATGA CATTGAGCGC TTGGCTAGTC GTGTTCTTTT	1320
TGGCAAAACC AATCCAAAGG ATCTCTTGCA GTTGGCGACT ACCTTGCTCTA GTGTGCCACG	1380
GATTCGTGCG ATTTTAGAAG GGATGGAGCA ACCTACTCTA GCCTATCTCA TCGCACAAC	1440
GGATGCAATC CCTGAGTTGG AGAGTTTGAT TAGCGCAGCG ATTGCTCCTG AAGCTCCTCA	1500
TGTGATTACA GATGGGGGAA TTATCCGGAC TGGATTTGAT GAGACTTTAG ACAAGTATCG	1560
TTGCGTCTC AGAGAAGGGA CTAGCTGGAT TGCTGAGATT GAGGCTAAGG AGCGAGAAAA	1620
CTCTGGTATC AGCACGCTCA AGATTGACTA CAATAAAAAG GATGGCTACT ATTTTCATGT	1680
GACCAATTCG CAACTAGGAA ATGTGCCAGC TCACTTTTTC CGCAAGGCGA CGCTGAAAAA	1740
CTCAGAACGC TTTGGAACCG AAGAATTAGC CCGTATCGAG GGAGATATGC TTGAGGCGCG	1800
TGAGAAGTCA GCCAACCTCG AATACGAAAT ATTTATGCGC ATTTCGTGAAG AGGTCGGCAA	1860
GTACATCCAG CGTTTACAAG CTCTAGCCCA AGGAATTGCG ACGGTTGATG TCTTACAGAG	1920
TCTGGCGGTT GTGGCTGAAA CCCAGCATTT GATTCGACCT GAGTTTGGTG ACGATTACAA	1980
AATGATATC CGGAAAGGGC GCCATGCTGT CGTTGAAAAG GTTATGGGGG CTCAGACCTA	2040
TATTCCAAAT ACGATTGAGA TGGCAGAAGA TACCAGTATT CAACTGGTTA CAGGGCCAAA	2100

534

CATGAGTGGG AAGTCTACCT ATATGCGTCA GTTAGCCATG ACGGCGGTTA TGGCCCAGCT	2160
GGGTTCTCTAT GTTCCTGCTG AAAGCGCCCA TTTACCGATT TTTGATGCGA TTTTACCCG	2220
TATCGGAGCA GCAGATGACT TGGTTTCGGG TCAGTCAACC TTTATGGTGG AGATGATGGA	2280
GGCCAATAAT GCCATTTCGC ATGCGACCAA GAACTCTCTC ATTCTCTTTG ATGAATTGGG	2340
ACGTGGAAC TCAACTTATG ACGGGATGGC TCTTGCTCAG TCCATCATCG AATATATCCA	2400
TGAGCACATC GGAGCTAAGA CCTCTTTGC GACCCACTAC CATGAGTTGA CTAGTCTGGA	2460
GTCTAGTTTA CAACACTTGG TCAATGTCCA CGTGGCAACT TTGGAGCAGG ATGGGCAGGT	2520
CACCTTCCTT CACAAGATTG AACCGGACC AGCTGATAAA TCTACGGTAT CCATGTTGCC	2580
AAGATTGCTG GCTTGCCAGC AGACCTTTTA GCAAGGGCGG ATAAGATTTT GACTCAGCTA	2640
GAGAATCAAG GAACAGAGAG TCCTCCTCCC ATGAGACAAA CTAGTGCTGT CACTGAACAG	2700
ATTTCACTCT TTGATAGGGC AGAAGAGCAT CCTATCCTAG CAGAATTAGC TAACTGGAT	2760
GTGTATAATA TGACACCTAT GCAGGTTATG AATGTCTTAG TAGAGTTAAA ACAGAACTA	2820
TAAAACCAAG ACTCACTAGT TAATCTAGCT GTATCAAGGA GACTTCTTTG ACAATTCTCC	2880
ACTTTTTTGC TAGAATAACA TCACACAAAC AGAATGAAAA GGAGCTGACG CATGTGCGCT	2940
CCCTTTTGTC TATTTTTTAA GGAGAAAGTA TGCTGATTCA GAAAATAAAA ACCTACAAGT	3000
GGCAGGCCCT GGCTTCGCTC CTGATGACAG GCTTGATGGT TGCTAGTTCA CTTCTGCAAC	3060
CGCGTTATCT GCAGGAAGTC TTAGGCGCCC TCCTTACTGG GAAATATGAA GCTATTTATA	3120
GTATCGGGC TTGGTTGATT GGTGTGGCCG TAGTCGGTCT AGTTGCTGGT GGACTCAATG	3180
TTGTCTCGC AGCCTATATT GCCCAAGGAG TTTCATCCGA CCTTCGGGAG GATGCCTTCC	3240
GTAAAATTC AACTTTTCT TATGCTGATA TTGAACAAAT TAATGCGGGA AATCTAGTCG	3300
TTCGAATGAC AAATGATATC AACCAGATTC AGAACGTTGT CATGATGACC TTCCAAATTC	3360
TTTTCAGACT TCCCCTCTTG TTCATCGGTT CGTTTATCCT AGCGGTTCAA ACCTTACCTT	3420
CTCTGTGGTG GGTGATTGTT CTCATGGTAG TCTTGATTTT TGGTTGACT GCTGTCATGA	3480
TGGGAATGAT GGGGCTCGT TTGCCAAGT TTCAAACCCT TCTTGAGCGC ATCAATGCCA	3540
TTGCCAAGGA AAATTTACGT GCGTTCGTG TGGTCAAGTC CTTTGTTCAA GAAAAAGAGC	3600
AATTTGCTAA GTTTACAGAG GTCTCAGACG AGCTTCTTGG TCAAAACCTT TACATTGGTT	3660
ATGCCTTTTC AGTAGTGGA CCCTTTATGA TGTTGGTTGG TTACGGGGCG GTCTTCCTCT	3720
CTATTTGGCT GGTGCGGGA ATGGTTCAGT CGGATCCGTC TGTTGTTGGT TCCATCGCTT	3780
CTTTTGTTAA TTACCTAAGC CAGATTATCT TTACCATTTG TATGGTTGGA TTTTGGGAA	3840
ATTCTGTCAG CCGTGCCATG ATTTCCATGC GTCGTATTCG AGAAATTCCT GACGCAGAGC	3900

535

CAGCTATGAC CTTCAAGGAT ATCCCAGATG AAGAGTTGGT TGGAAGTCTT AGCTTTGAAA	3960
ATGTGACCTT TACCTATCCA ATGGACAAGG AACCGATGCT GAAAGATGTG AGCTTTACTA	4020
TTGAACCTGG TCAAATGGTT GGTGTAGTTG GAGCGACTGG TGCAGGAAAG TCAACCTTGG	4080
CTCAATTGAT TCCACGTCTC TTTGATCCAC AGGACGGGGC CATTAAAAATC GGTGGCAAGG	4140
ATATTCGAGA AGTGAGTGAA GGAACCCCTG GTAAACAGT TTCCATCGTT CTCCAACGTG	4200
CCATTCTTTT TAGTGGAACG ATTGCAGATA ACTTGAGACA GGGGAAGGGG AATGCTACTC	4260
TATTTGAAAT GGAGCGCGCA GCCAATATTG CCCAGGCTAG TGAATTCATT CATCGTATGG	4320
AGAAAACCTT TGAAAGTCCA GTTGAAGAAC GGGGAACCAA TTTCTCTGGT GGACAAAAAC	4380
AAAGGATGTC GATTGCGCGT GGGATTGTCA GCAATCCACG TATTCTGATT TTTGATGATT	4440
CGACCTCAGC CTTGGATGCC AAATCAGAGC GCTTGGTGCA AGAAGCTTGT AATAAGGACT	4500
TGAAGGGGAC GACAACCATT ATTATTGCTC AAAAAATTAG CTCGGTTGTC CATGCAGACA	4560
AGATCTTGGT TCTAAATCAA GGACGATTGA TTGGTCAAGG TACGCATGCA GACTTGGTTG	4620
CCAACAATGC CGTTTACCGT GAAATCTATG AAACACAGAA ATGAAAGACA AACTATAAGA	4680
AAAGTCAATA GTTTTATCTA AACTATTTCT TATTTCAATT TGATGATTTG GCGATGATT	4740
TAGAGCACGG CAAAAAGCCC TTGAAAAAGT CCATTTTTTTC AAAGGTAATC CTGTGTTAAT	4800
TTCAGAAATT ACATCACITT TTGTTTCGTC AATGGCAGCT CTTTTTTTAG GATATAAAC	4860
AGGGTTCGGA TAAGTTTTTT TGCAAGGTGG ATGATGGCTA CATTGTAATG TTTTCCTTGT	4920
TCTAATTTAG TCTTAAGATA GGCCTTAAAA GCAGGCGAAA AGCGAGGGCA TGCTTTGGCA	4980
GCTTGTATGA GTACCTACCG CAGATGAGGG GAACTCCGTT TGACCATTCT TCCTGCTAAA	5040
TCAATCTGAT CTGACTGATA AATAGAAGAA TCCAGTCCAG CGAAAGCTTG TAATTGAGCA	5100
GGATTATCAA AGGCATGAAT ATTTCAATC TCAGCTAAAA TGACCGCCCC TAAACGATCC	5160
CCAATCCAG TAACCGTCGT GATGACCGAG TTGAACTCAG CCATCAAGTC ATTGACACAT	5220
GTTTCCGCCT TGTCATGAG CCTCTTGTA TGTTTGATGT TTTTATTACA CGAGATAAAA	5280
CGTCTATGCG TTATCAAACCT CATTACCAAT TAAAACAAAA AGCTGTGGTT AGATCCTTTC	5340
GGAAATTGTC AAGCGATTGG AGGAAATGAA CTAATCCACA GCGGCTTATT CCAAGTATAC	5400
CACTTGGGCT TTGGCAGTAG CTAAGTGGC TAAATATAAT ATAAGGAGGA GTAAATGAA	5460
GACAGTTCAA TTTTTTTGGC ATTATTTTAA GGTCTACAAG TTCTCATTTG TAGTTGTCAT	5520
CCTGATGATT GTTCTGGCGA CTTTGGCCCA AGCCCTCTTT CCAGTCTTTT CTGGACAAGC	5580
GGTGACGCAG CTAGCCAATT TAGTTCAAGC TTATCAAAAT GGCAATCCAG AACTTGATG	5640

536

GCAAAGCCTA TCAGGAATCA TGGTCAATCT TGGCCTGCTG GTTTTGGTTC TATTTATCTC	5700
TAGTGTAATA TACATGTGTC TCATGACGCG CGTGATTGCA GAATCGACCA ACGAGATGCG	5760
CAAAGGCCCTC TTTGGTAAGC TTGCTCAGTT GACGGTTTCT TTCTTTGACC GTCGACAAGA	5820
TGGCGATATC CTGTCTCATT TTACCAGTGA TTTGGATAAT ATCCTCCAAG CCTTTAACGA	5880
AAGCTTGATT CAGGTCATGA GCAATATTGT TTTATACATT GGTCTGATTG TTGTCATGTT	5940
TTTCGAGAAAT GTGACGCTGG CTCTCATCAC CATTGCCAGC ACCCCATTGG CTTTCCTTAT	6000
GCTGATTTTC ATCGTGAAAA TGGCAGCAA ATACACCAAC CTCCAGCAGA AAGAGGTAGG	6060
GAAGCTCAAC GCCTATATGG ATGAGAGCAT CTCAGGCCAA AAAGCCGTGA TTGTGCAAGG	6120
AATTCGAAGG GATATGATGG CAGGATTTCT TGAACAAAAT GAGCGCGTGC GCAAGGCAAC	6180
CTTTAAAGGA AGAATGTTCT CAGGAATTCT TTTCCCTGTC ATGAATGGGA TGAGCCTGAT	6240
TAATACAGCC ATCGTCATCT TTGCTGGTTC GGCTGTACTT TTGAATGATA AGTCTATTGA	6300
AACAAGTACA GCCCTAGGTT TGATTGTTAT GTTTGCACAA TTTTCACAGC AGTACTACCA	6360
GCCTATTATC CAAGTTGCAG CGAGTTGGGG AAGCCTTCAG TTGGCCTTTA CTGGAGCTGA	6420
ACGAATTCAG GAAATGTTTG ATGCAGAGGA GGAAATCCGA CCTGAAAAGG CTCCAACCTT	6480
CACTAAGTTG CAAGAAAGTG TTGAAATCAG TCATATCGTT TTTTCATACT TGCCTGATAA	6540
ACCTATTTTG AAAGATGTCA GCATTTCTGC CCCTAAAGGC CAGATGACAG CAGTTGTTGG	6600
GCCGACAGGT TCAGGAAAAA CGACTATTAT GAACCTCATC AATCGCTTTT ATGATGTTGA	6660
TGCTGGTGGT ATTTATPTTG ATGGTAAAGA CATTGCTGGC TATGACTTAG ATAGCTTAG	6720
AAGCAAGGTG GGAATTGTAT TGCAAGATTC GGTCITGTTT AGCGGAACGA TTAGAGACAA	6780
TATCCGATTT GGTGTGCCAG ATGCTAGTCA GGAAATGGTT GAGGTAGCAG CAAAAGCAAC	6840
CCACATTACG GACTATATCG AAAGTTTGCC TGATAAGTAC GATACTCTTA TTGATGATGA	6900
CCAGAGCATC TTTTCAACAG GGCAGAAGCA ATTGATTTC AATCGCTCGAA CCCTGATGAC	6960
AGATCCAGAA GTTCTCATTC TCGATGAAGC AACTTCAAAC GTAGATACGG TGACAGAAAG	7020
CAAGATTGAG CATGCCATGG AGGTGGTTGT AGCAGGTAGA ACTAGTTTCG TCATTGCCCA	7080
CCGCTTGAAA ACCATTCTCA ATGCAGATCA GATTATTGTC CTTAAAGATG GAGAAGTCAT	7140
TGAACGTGGT AACCACCATG AACTTTTGAA GCTAGGTGGC TTTTATTGAG AACTCTATCA	7200
CAATCAATTT GTTPTCGAAT AAGAAAGAAG TTGTCCTATG TGGGCAGCTT TTTCTTGTC	7260
ATAAAAAATG TTTATCACAG CCTTAAAAAA AACATATTAG ACGAAAAGTCA TTTTGAGTGA	7320
TATGATAGGA CTATCGTTAG CATTCGAAAG GAGAGGCATC ATGGCTAGAA CGGTGTAGG	7380
AGTTGCTGCA AATCTATGTC CCGTAGACGC AGAAGGCAAA ATCATTCATT CATCTGTATC	7440

537

TTGTAGATTC GCAGAGATCA TTCGTCAAGT CGGTGGTCTC CCTTTAGTCA TTCCTGTTGG	7500
TGATGAGTCA GTTGTACGTG ATTATGTGGA AATGATTGAC AAATCATT TACAGGAGG	7560
CCAAAATGTT CATCCTCAGT TTTATGGAGA GAAAAAGACC GTCGAGAGCG ATGATTACAA	7620
TCTGGTCCGT GACGAATTG AATTGGCACT CTTGAAGGAA GCGCTTCGTC AGAATAAACC	7680
AATTATGGCA ATCTGTCGCG GTGTCCAAC TGTCAATGTT GCCTTTGGTG GAACCCTCAA	7740
TCAAGAAATC GAAGGTCAGG	7760

(2) INFORMATION FOR SEQ ID NO: 64:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2723 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 64:

GAGGTTTFAA TTCACTTACC TCTSCCGTAT CTTTATTTAA AATGAATTCT TTTACGGTTG	60
TATTTCTTGC AAAATCTTTT ACAACAATCT TAATGTTTAG TGTCTTGTCT ATTATTTGTT	120
TAATATCATT AAATGATGTA TATTTCTTTC CATTTATATA AATATGTTGT TCTTGAATCT	180
CACCATCGAA TCCATTATTT CTTTATCAT TGATGTTAAA GACTACAGAT TTTCCATCAG	240
CATATTCGAT ACTAGTATTT CCCTTAGGAT CAATGTTTAC TTCGGGTTTA ACATTATCAT	300
ATAAAACTG ATAGTGGACT CCAACTGCCT TAGCATTCAA ATCGCTATAG CCAGTTTGAA	360
GATAAACATT TCCATCCATA TCTGTTACCT TATCTGAAA TCCGTTTGCT TTATAGTCTT	420
TCATTCCCCA GTCCATGATG TCACCGTCTT TAACATTCAG CTTAATATTA AAATCTCTAG	480
TGTTATCAAT GTGTAAATCT CCGTAGATTA AATAATTATC TACAACCGAT TCATTAACTC	540
TCAATTCCCA GTTAAACCA CCCTTATCAG AATCTTACC TCTTAAATAA AATTCTGGAT	600
TTCTGACATA AATTTTATTA GATTTAGATG GATTAAAGTA GTTCTTATCC ATTGAAAGGT	660
TTACTGGTTT GGTATCAATA AATAACATGG AGCCATCTTC TTTTATAGCT TCTACATTGA	720
ACTTATCCTC TCCAGTGTAT TCTTTATCAT CCTTACCAA TAATACAAGT TTAGAAGAAT	780
CTGTCACAAG ATTTCCGTCT TTATCGATAG CTTCCCTTT ATCGTTCATT TTAAATGTAA	840
ACACTTGATA CCTTATAATG TTAAAGCCGT CCAAAGCCGA CATTAATACA GATTGGGTAC	900
TTCTTCCATC TTCAACATTT CTAATATCAG CATAAATTGT TGTTTCTGAA AGGGCTCTTA	960
GATTAGGATT GGCCTTTTGT ATTTTGTGTA TATCTTCCTT GCTATAGACT CCATTTCCTT	1020

538

CTAACATATC CGTTTTTCCA GGATTATAGG TAGTCACCTT TAGTGCATAG CCTTTTCTTA	1080
GAATGATATT ATCCTTTAAC AGATATTGTT GTTTTCTGA ATCAGAATAG ATTTTACCAG	1140
ATTCATTTTT AGTTAAATTG TCTGGTTTGT TTTTGAAAG ATCTCCTTCC CCTAATTCTA	1200
TGACATTCCC ATAACCTGAT ACATAGGGAT ATTCTGATTT AGTTTCCTTA ATTTTTCAG	1260
GCATTCTAAT TTTAATTTCA GCTTTTTTCT GATCATTATC TTTAACAAAT AATCTCATAT	1320
CTCCTGCAAA AGCTAATCCA TCCACAATAT CATTAATATT AGCGTATAGA TCAAATGTCA	1380
TCGTTTTTGA GTGGAAATCA TACTTGGTCG CTTTGATTTC TATAGATTTA TAGTTATTCC	1440
CATAATATAC CTGGGCATTT TTAGAAACAT TACTTATCTT TCCAAGAATT TCAAAGTGC	1500
CATCTTTAGA CGGACTTAGA ACACCATAAA TTTTGTGATT GATTTCTGCA AGTTTCTCAG	1560
TTTCATATTC TAGATCAGTC CCATCATCGT AGGCTATTAT ATTTCTTTTA TCATCGTATT	1620
TATAATCGTA TTCCTCCATT CTCTTACCAG TTTCACCTGT AAAATCATCA ACTTCTCTAA	1680
ATTTCTTTTT AATGAGTTTC TTTAAGTCTT TATTTTCAAA GTCTCTAATT GTTGAAATAT	1740
TTCTATCAAT AGTAAACTA GATTTTCTT TAATAGACTC TTCATTTTCT TGATGATGAT	1800
GTTCTACCCC AGTTGTATCT TTTTGTAGAC TACCCTCTTT TCCATTTCCCT AAATTTTAA	1860
ATTTAGATTC TGCAATCTCG CCAAGCTTTT GATATTTAGA TGAATCTTGA TCAGGATCTA	1920
CTAGATAATA GGAAATCATC CCCTTTTCAT CAGCCTGATT AGCAAATTTA ATTCTATGAA	1980
TCTTTGTGAA ATTGCTAGAA CCATCTAATG CAATGACTTC AATGATTTTT CCCCTTAAAT	2040
CTCCCGCACC TTTAATTTCA TAAATGGTAT TTCCGTCTTT ATCAAGTTTT CTATTTCTTC	2100
CTTGACCCTC ACCTGCGTAA GTTACTTCAA GATTTTTTTT AACCTCTCCA TCTTCATTAA	2160
CAAGAGCGGC GCCAGCATAC CAAACTTCGT TCGCAATCTC GTCAAATTTT TCAGGATGTT	2220
CTTTTGTATC TCTCGCAAAT AGCGTTTCAT TCTTATACTG ATCTTTTACC TTATGATAAG	2280
TATCCTTTGT AATCAACTTA ATTTTTCAG GATTTGAAAA ATCAACCGAA ACAATCTTAG	2340
GGGCGGTGTT ATCAATTTTT ACAGGAATAT AGGAAACCTG CCATGGGTAA TCTTTAGTTA	2400
ATCTATATTT AAATTTATAG AAATATTGAC CTTCCGCAAT CGGTTCAAAT TGACCTCTTA	2460
TCTTAGTAGC AGGATCTTGA TTATCCTTAC TTTCTGGTGC ATTTTCTTCT CTACCTCTAG	2520
GATTATAGAT GAGTCCATCC CACTTCAAGT CACCCCAAAC TTTTAGTTTA GATGATTTGA	2580
TTCCCTTTCG ATCATTGCTT TTAGAATTTA AAATTCCTCT AATAAGTGT TCTCTCGAAA	2640
TGACTTTTAA GTCTCTTTGA TTTTCTCCCT CTTTATTTGT ATTTACTATT GAAATCAATC	2700
CTTCTTCTGC ACTTCTTAAT ACA	2723

(2) INFORMATION FOR SEQ ID NO: 65:

539

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11831 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 65:

AAAAAAGTGG GAATGACTCA AATCTTCACT GAAGCTGGCG AATTGATCCC TGTAACAGTT	60
ATTGAAGCAA CTCCAAACGT TGTTCCTCAA GTTAAACTG TTGAAACAGA CGGATACAAC	120
GCTATCCAAG TTGGTTTCGA TGACAAACGC GAAGTATTGA GCAACAAACC TGCTAAAGGA	180
CATGTAGCGA AAGCTAACAC GGCTCCTAAG CGCTTCATTC GTGAATTCAA AAACGTTGAA	240
GGCTTGGAAG TTGGTGCTGA AATTACAGTT GAAACATTCG CAGCTGGAGA CGTTGTTGAC	300
GTAACGGGTA CTTCTAAAGG TAAAGGTTTC CAAGGTGTTA TCAAACGCCA CGGACAATCA	360
CGTGGACCAA TGGCTCACGG TTCTCGTTAC CACCGTCGTC CAGGTTCTAT GGGGCCTGTT	420
GCACCTAACC GCGTATTCAG AGGTAAAAAC CTTGCAGGAC GTATGGGTGG CGACCGCGTA	480
ACAATTCAAA ACCTTGAAGT TGTACAAGTT GTTCCAGAAA AGAACGTTAT CCTTATCAA	540
GGTAACGTAC CAGGTGCTAA GAAATCTCTT ATCACTATCA AATCAGCAGT TAAAGCTGGT	600
AAATAATAAA GAAAGGGGAA ATCAGTCACA ATGGCAAACG TAACATTATT TGACCAAAC	660
GGTAAAGAAG CTGGCCAAGT TGTTCCTAGC GATGCAGTAT TTGGTATCGA ACCAAATGAA	720
TCAGTTGTGT TTGATGTAAT CATCAGCCAA CGCGCAAGCC TTCGTCAAGG AACACACGCT	780
GTTAAAAACC GCTCTGCAGT ATCAGGTGGT GGACGCAAAC CATGGCGTCA AAAAGGAACT	840
GGACGTGCTC GTCAGGTTC TATCCGCTCA CCACAATGGC GTGGTGGTGG TGTGTCTTC	900
GGACCAACTC CACGTTCAFA CGGCTACAAA CTTCCACAAA AAGTTCGTCG CCTAGCTCTT	960
AAATCAGTTT ACTCTGAAAA AGTTGCTGAA AACAAATTCG TAGCTGTAGA CGCTCTTTCA	1020
TTTACAGCTC CAAAACTGC TGAATTTGCA AAAGTCTTG CAGCATTGAG CATCGATTCT	1080
AAAGTTCTTG TTATCCTTGA AGAAGGAAAT GAATTCGCAG CTCTTTCAGC TCGTAACCTT	1140
CCAAACGTGA AAGTTGCAAC TGCTACAACT GCAAGTGTTC TTGACATCGC AAATAGCGAC	1200
AAACTTCTTG TCACACAAGC AGCTATCTCT AAAATCGAGG AGGTTCTTGC ATAATGAATT	1260
TGTATGATGT TATCAAAAAA CCTGTCACTA CTGAAAGCTC AATGGCTCAA CTTGAAGCAG	1320
GAAATATGTT ATTTGAAGTT GACACTCGTG CACACAACT TTTGATCAAG CAAGCTGTTG	1380
AAGCTGCTTT CGAAGGTGTT AAAGTTGCCA ATGTTAACAC AATCAACGTA AAACCAAAG	1440

540

CTAAACGTGT TGGACGTTAC ACTGGTTTTA CTAACAAAAC TAAAAAAGCT ATCATCACAC	1500
TTACAGCTGA TTCTAAAGCA ATCGAGTTGT TTGCTGCTGA AGCTGAATAA TCTAAGGAGG	1560
AAATATCGTG GGAATTCGTG TTTATAAACC AACACAAAC GGTCGCCGTA ATATGACTTC	1620
TTTGATTTTC GCTGAAATCA CAACAAGCAC TCCTGAAAAA TCATTGCTTG TTGCATTGAA	1680
GAGCAAGGCT GGTGTAACA ACAACGGTCG TATCACAGTT CGTCACCAAG GTGGTGGACA	1740
CAAACGTTTC TACCGTTTGG TTGACTTCAA ACGTAATAAA GACAACGTTG AAGCAGTTGT	1800
TAAACAATC GAGTACGATC CAAACCGTTC TGCAACATC GCTCTTGATC ACTACACTGA	1860
CGGTGTGAAA GCATACATCA TCGCTCCAAA AGGTCTTGAA GTAGGTCAAC GTATCGTTTC	1920
AGGTCCAGAA GCAGATATCA AAGTCGAAA CGCTCTTCCA CTTGCTAACA TCCCAGTTGG	1980
TACTTTGATT CACAACATCG AGTTGAAACC AGGTCGTGGT GGTGAATTGG TACGTGCTGC	2040
TGGTGCATCT GCTCAAGTAT TGGGTTCTGA AGGTAAATAT GTTCTTGTTT GTCTTCAATC	2100
AGGTGAAGTT CGTATGATTC TTGGAACCTG CCGTGCTACA GTTGGTGTG TCGGAAACGA	2160
ACAACATGGA CTTGTAAACC TTGGTAAAGC AGGACGTAGC CGTTGGAAAG GTATCCGCCC	2220
AACAGTTCGT GGTCTGTAA TGAACCCTAA CGATCACCCA CACGGTGGTG GTGAAGGTAA	2280
AGCACCAGTT GGTGTAAG CACCATCTAC TCCATGGGGC AAACCTGCTC TTGGTCTTAA	2340
AACTCGTAAC AAGAAAGCGA AATCTGACAA ACTTATCGTT CGTCGTGCGA ACGAGAAATA	2400
ATATTAACT AGTCGCTTAA GCAACTAGTA AATCCGCCAG CTCGGTAGCG CTCCATAGGA	2460
GTGCAAGCCG CTGTGGTACA ACATTTAAAG GAGAAAATAT AAAAATGGGA CGCAGTCTTA	2520
AAAAAGGACC TTTCGTCGAT GAGCATTGTA TGAAAAAGT TGAAGCTCAA GCTAACGACG	2580
AAAAGAAAA AGTTATTAAA ACTTGGTCAC GTCGTTCAAC GATCTTCCCA AGTTTCATTG	2640
GTTACACTAT TGCAGTTTAT GACGGACGTA AACACGTACC TGTTTACATC CAAGAAGACA	2700
TGGTAGGCCA CAAACTTGGT GAATTTGCAC CAACTCGTAC TTACAAAGGT CACGCTGCAG	2760
ACGACAAGAA AACACGTAGA AAATAAGGAG AACATAAATG GCAGAAATTA CTTCAGCTAA	2820
AGCAATGGCT CGTACAGTAC GTGTTTCACC TCGTAAATCA CGTCTTGTTT TTGATAACAT	2880
CCGTGGTAAA AGCGTAGCCG ATGCAATCGC AATCTTGACA TTCACTCCAA ACAAAGCTGC	2940
TGAAATCATC TTGAAAGTTT TGAACCTCAGC TGTAAGCTAAC GCTGAAAACA ACTTTGGTTT	3000
GGATAAAGCT AACTTGGTAG TATCTGAAGC ATTCGCAAAC GAAGGACCAA CTATGAAACG	3060
TTTCCGTCCA CGTGCAGAAAG GTTCAGCTTC ACCAATCAAC AAACGTACAG CTCACATCAC	3120
TGTAGCTGTT GCAGAAAAAT AAGGAGGTAA AATCGTGGGT CAAAAAGTAC ATCCAATTGG	3180
TATGCGTGTC GGCATCATCC GTGATTGGGA TGCCAAATGG TATGCTGAAA AAGAATACGC	3240

541

GGATTACCTT CATGAAGATC TTGCAATCCG TAAATTCGTT CAAAAAGAAC TTGCTGACGC	3300
AGCAGTTTCA ACTATTGAAA TCGAACGCGC AGTAAACAAA GTTAACGTTT CACTTCACAC	3360
TGCTAAACCA GGTATGGTTA TCGGTAAAGG TGGTGCTAAC GTTGATGCAC TCCGTGCAAA	3420
ACTTAACAAA TTGACTGGAA AACAAGTACA CATCAACATC ATCGAAATCA AACAACTGA	3480
TTTGGATGCT CACCTTGTA GGAAGGAAT TGCTCGTCAA TTGGAGCAAC GTGTTGCTTT	3540
CCGTGCTGCA CAAAAACAAG CAATCCAACG TGCAATGCGT GCTGGAGCTA AAGGAATCAA	3600
AACTCAAGTA TCAGGTCGTT TGAACGGTGC AGATATCGCC CGTGCTGAAG GATACTCTGA	3660
AGGAACTGTT CCGCTTCACA CACTTCGTGC AGATATCGAT TACGCTTGGG AAGAAGCAGA	3720
TACTACATAC GGTAAACTTG GTGTTAAAGT ATGGATCTAC CGTGGTGAAG TTCTTCAGC	3780
TCGTAAAAAC ACTAAAGGAG GTAAATAACC AATGTTAGTA CCTAACGTG TTAACACCG	3840
TCGTGAGTTC CGTGAAAAA TGC CGGTGA AGCAAAAGGT GGAAAGAAG TAGCATTCGG	3900
TGAATACGGT CTTCAAGCTA CAACTAGCCA CTGGATCACT AACCGCCAAA TCGAAGCTGC	3960
TCGTATCGCC ATGACTCGTT ACATGAAACG TGGTGGTAAA GTTTGGATTA AAATCTTCCC	4020
ACACAAATCA TACTGTGCTA AAGCTATCGG TGTGCGTATG GGATCTGGTA AAGGGCACC	4080
TGAAGGTGG GTAGCACCAG TTAAACGTGG TAAAGTGATG TTCGAAATCG CTGGTGTATC	4140
TGAAGAGATT GCACGTGAAG CGCTTCGACT TGCTAGCCAC AAATTGCCAG TTAAATGTAA	4200
ATTCGTAAAA CGTGAAGCAG AATAAGGAGA AGGCATGAAA CTTAATGAAG TAAAGAATT	4260
TGTTAAAGAA CTTCTGGTTC TTTCTCAAGA AGAACTCGCG AAGCGCGAAA ACGAATTGAA	4320
AAAAGAATTG TTTGAAC TTCCTCAAGC TGCTACTGGT CAATTGGAAC AACAGCTCG	4380
CTTGAAAGAA GTTAAAAAC AAATCGCTCG CATCAAAACA GTTCAATCTG AAGCGAAATA	4440
ATAGACTAGG GAAGGAGAAA TTTCATGGA ACGCAATAAT CGTAAAGTTC TTGTTGGACG	4500
TGTTGTATCT GACAAAATGG ACAAGACAAT CACAGTTGTA GTTGAAACAA AACGTAACCA	4560
CCCAGTCTAT GGTAAACGTA TTAATACTC TAAAAATAC AAAGCTCATG ATGAAAACAA	4620
TGTTGCCAAA GAAGCGGATA TCGTACGTAT CATGGAACT CGCCCGCTTT CAGCTACAAA	4680
ACGTTTCGGT CTTGTAGAAG TTGTTGAAGA AGCGGTCATC ATCTAATCAA ACCTGAAAGG	4740
AGAAAACTGA AATGATTCAA ACAGAACTC GTTTGAAAGT CGCAGACAAC AGCGGTGCTC	4800
GCGAAATCTT GACTATCAAA GTTCTTGGTG GTTCAGGACG TAAATTTGCA AACATCGGTG	4860
ATGTTATCGT GGCATCTGTA AAACAAGCTA CTCCTGGTGG TGCGGTAAAA AAAGGTGACG	4920
TTGTTAAAGC AGTTATCGTT CGTACTAAAT CAGGTGCTCG TCGTGCTGAT GGTTCATACA	4980

542

TCAAATTTGA	CGAAAACGCA	GCAGTTATCA	TCCGTGAAGA	CAAAACTCCT	CGCGGAACAC	5040
GTATCTTTGG	CCCAGTTGCA	CGTGAATTGC	GTGAAGGTGG	CTTCATGAAG	ATCGTGTAC	5100
TTGCTCCAGA	AGTACTTTAA	TTTTTAGGAA	CAAACTAGTC	CCCTAGCTTC	AAGCTAGGGT	5160
GCCCTTATGG	GCGTAAGAAA	AATCAAGGAG	AAACCTAATG	TTTGTAAGAA	AAGGCGACAA	5220
AGTTCGCGTA	ATCGCTGGTA	AAGATAAGGG	AACAGAAGCT	GTTGTCCTTA	CTGCCCTTCC	5280
AAAAGTAAAC	AAAGTTATCG	TTGAAGGTGT	TAACATTGTT	AAGAAACACC	AACGTCCAAC	5340
TAACGAGCTT	CCTCAAGGTG	GTATCATCGA	GAAAGAAGCA	GCTATCCACG	TATCAAACGT	5400
TCAAGTTTGT	GACAAAAATG	GTGTAGCTGG	TCGTGTTGGA	TACAAATTTG	TAGACGGTAA	5460
AAAAGTTCGC	TACAACAAAA	AATCAGGCGA	AGTGCTTGAT	TAATCACGAA	GGAAAGGAGA	5520
AGTATAATGG	CAAATCGTTT	AAAAGAAAAA	TATCTTAATG	AAGTAGTTCC	TGCTTTGACA	5580
GAACAATTCA	ACTACTCATC	AGTGATGGCT	GTGCCTAAAG	TAGATAAGAT	TGTTTTGAAC	5640
ATGGGTGTTG	GTGAAGCTGT	ATCAAACGCT	AAAAGCCTTG	AAAAAGCTGC	TGAAGAATTG	5700
GCACCTATCT	CAGGTCAAAA	ACCACTTATC	ACTAAAGCTA	AAAAATCAAT	CGCCGGCTTC	5760
CGTCTTCGTG	AAGGTGTTGC	GATCGGTGCA	AAAGTTACCC	TTCGTGGTGA	ACGTATGTAC	5820
GAATCTTTGG	ATAAATTGGT	ATCAGTTTCA	CTTCCACGTG	TACGTGACTT	CCACGGTGTC	5880
CCAACAAAAT	CATTTGATGG	ACGCGGGAAC	TACACACTTG	GTGTGAAAGA	ACAATTAATC	5940
TTCCCGAGAA	TCAACTTCGA	TGACGTTGAC	AAAACCTCGT	GTCTTGACAT	CGTTATCGTA	6000
ACAACTGCTA	ACACTGACGA	AGAGTCACGT	GCATTGCTTA	CAGGCCTTGG	AATGCCTTTT	6060
GCAAAATAAT	ATAGGAGGTA	AATCTAATGG	CTAAAAATC	AATGGTACCT	AGAGAGGCTA	6120
AACGCCAAAA	AATTGTTGAC	CGTTATGCTG	AAAAACGTGC	TGCATTAAAG	GCGGCAGGGG	6180
ACTACGAAGG	TTTATCTAAA	TTACCTCGCA	ACGCCTCACC	GACTCGTTTA	CATAATCGTT	6240
GTAGGGTTAC	GGGGCGCCCA	CATTCAGTTT	ACCGCAAATT	TGGTCTGAGT	CGTATCGCTT	6300
TTTCGGAAGT	TGCGCATAAA	GGTCAAATTC	CTGGTGTAAC	AAAAGCATCT	TGGTAATTTA	6360
AGATATCAAG	AGCGTCAAAA	CTCCAAGTAA	AAATAGGAAA	CTTGACGAAG	AAACTAAAGT	6420
TTCTAGGAAA	GTTTATCTTT	TTCACACAGA	GTTTAGCCCG	GGTTCAATTG	GGCTTGCCAA	6480
TTTGAACACG	AGCTACAGCT	TTGGCAAAAA	AGACCAATTT	GCTTTGGAGC	ATTGCTTCTG	6540
CATTAAATTG	TCTATTTTGT	CTCGTGCTGT	TACGCTCTTT	GTATCATGTA	TTAACTAGCA	6600
AGTGCAACTT	GCAAACTACT	AGTAAGAGGA	GAAAAACAAA	ATGGTTATGA	CTGACCCAAT	6660
CGCAGACTTC	CTAACTCGTA	TTCGTAATGC	TAACCAAGCT	AAACACGAAG	TACTTGAAGT	6720
ACCTGCATCA	AACATCAAAA	AAGGGATTGC	TGAAATCCTT	AAACGCGAAG	GTTTTGTAAA	6780

AAACGTTGAA ATCATTGAAG ATGACAAACA AGGCGTCATC CGTGTATTTT TTAATACGG	6840
ACCAAATGGT GAGAAAGTTA TCACTAACTT GAAACGTGTT TCTAAACCAG GACTTCGTGT	6900
CTACAAAAAA CGTGAAGACC TTCCAAAAGT TCTTAACGGA CTGGAATTG CCATCCTTTC	6960
AACTTCTGAA GGTTCGCTTA CTGATAAGA AGCACGCCAA AAGAATGTTG GTGGTGAGGT	7020
TATCGCTTAC GTTTGGTAAA ATCAAGATAC AAAGCTCGTA AAGAACAAAG CAAAATTAGG	7080
AAGTTGGAGA AGTTTGTTTA CAAACAAGCC AACTTATCTA TTTTGCACAG TTCTTAGAGC	7140
GTGTTGAGTT CAGCTCTTGA ACTAATAAG TATCTGAACC CCGTGAAC TGGCCGTTCT	7200
GGCCTGACAA TTTAACAGGA GAAAATAAAC ATGTCACGTA TTGGTAATAA AGTTATCGTG	7260
TTGCCTGCTG GTGTTGAACT CGCTAACAAT GACAACGTTG TAACTGTAAA AGGATCTAAA	7320
GGAGAACTTA CTCGTGAGTT CTCAAAGAT ATTGAAATCC GTGTGGAAGG TACTGAAATA	7380
ACTCTTCACC GTCCAAACGA TTCAAAAGAA ATGAAAACTA TCCACGGAAC TACTCGTGCC	7440
CTTTTGAACA ACATGGTTGT TGGTGTATCA GAAGGATTCA AGAAAGAACT TGAAATGCCG	7500
GGGTTTGGTT ACCGTGCACA GCTTCAAGGA TCTAAACTTG TTTTGGCTGT TGTAAATCT	7560
CATCCAGACG AAGTTGAAGC TCCAGAAGGA ATTACTTTTG AACTTCCAAA CCCAACAACA	7620
ATCGTTGTTA GCGGAATTTT AAAAGAAGTA GTTGGTCAAA CAGCTGCTTA CGTACGTAGC	7680
CTTCGTTTAC CAGAACCATA TAAAGGTAAA GGTATCCGTT ACGTTGGTGA ATTCGTTTCG	7740
CGTAAAGAAG GTAAACAGG TAAATAATGT TGAGTGGTTG ATCATCAACC ACCAACCTAT	7800
TTTCCAACTT TGTGCATAGC ACACGATTTA AACTTAAAGA GGTGAAACT GTGATTTCAA	7860
AACCAGATAA AAACAACTC CGCCAAAAC GCCACCGTCG CGTTCGCGGA AAACCTCTCTG	7920
GAACGTGCTA TCGCCACGT TTGAACGTAT TCCGTTCTAA TACAGGCATC TACGCTCAAG	7980
TGATTGATGA CGTAGCGGT GTAACGCTCG CAAGTGCTTC AACTCTTGAT AAAGAAGTTT	8040
CAAAGGAAC TAAACTGAA CAAGCCGTTG CTGTGCTTAA ACTCGTTGCA GAACGTGCA	8100
ACGCTAAAGG TATTTAGAA GTGGTGTTCG ACCGCGGTGG ATATCTATAT CACGGACGTG	8160
TGAAAGCTTT GGCTGATGCA GCTCGTGAAA ACGGATTGAA ATTCCTAATAG GAGGACACTA	8220
GAAATGCGA TTTAAAGACA ATGCAGTTGA ATTAGAAGAA CGCGTAGTTG CTGTCAACCG	8280
TGTTACAAAA GTTGTAAAG GTGGACGTCG TCTTCGTTTC GCAGCTCTTG TTGTTGTTGG	8340
TGACCACAAT GGTGCGGTAG GATTTGGTAC TGGTAAAGCT CAAGAAGTTC CAGAAGCAAT	8400
CCGTAAAGCA GTAGATGATG CTAAGAAAAA CTTGATCGAA GTTCCTATGG TTGGAACAAC	8460
AATCCCACAC GAAGTTCTTT CAGAATTCGG TGGAGCTAAA GTATTGTTGA AACCTGCTGT	8520

544

AGAAGGTTCT GGAGTTGCCG CTGGTGGTGC AGTTCGTGCC GTTGTGGAAT TGGCAGGTGT	8580
GGCAGATATT ACATCTAAAT CACTTGGTTC TAACACTCCA ATCAACATTG TTCGTGCAAC	8640
TGTTGAAGGT TTGAAACAAT TGAAACGCGC TGAAGAAATT GCTGCCCTTC GTGGTATTTC	8700
AGTTTCTGAT TTGGCATAAG AAAGGGGATA AAATGGCTCA AATTAAAATT ACTTTGACTA	8760
AGTCTCCAAT CGGACGCATT CCATCACAAC GTAAAACTGT TGTAGCACTT GGACTPGGCA	8820
AATTGAACAG CTCTGTTATT AAAGAAGATA ACGCTGCTAT CCGTGGTATG ATCACAGCAG	8880
TATCTCACTT AGTAACAGTT GAAGAAGTAA ACTAATGAAG TTTTAGGGGA TGTGCACTGT	8940
ACCATCCCCT AAAACTAGAT ATAGTCATCT ATGATGACAT CGTATAGGCG AGTTGATGGG	9000
GGAGACAACC TTTTCTCCCT TATCGGCGCT AGCATTTTAC AAAAGAGGAG AAAATAAAAA	9060
TGAAACTTCA TGAATTGAAA CCTGCAGAAG GTTCTCGTAA AGTACGTAAC CGCGTTGGTC	9120
GTGGTACTTC ATCAGGTAAC GGTAAACAT CTGGTCGTGG TCAAAAAGGT CAAAAGCTC	9180
GTAGCGGTGG CGGAGTTCGC CTTGGTTTGG AAGGTGGACA AACTCCATTG TTCCGTCGTC	9240
TTCCAAAACG TGGATTCACT AACATCAACG CTAAGAATA CGCAATTGTG AACCTTGACC	9300
AATTGAACGT CTTTGAAGAT GGTGCTGAAG TAACTCCAGT TGTTCTTATC GAAGCAGGAA	9360
TTGTTAAAGC TGAAAAGTCA GGTATTAAAA TTCTTGGTAA CGGTGAGTTG ACTAAGAAAT	9420
TGACTGTGAA AGCAGCTAAA TTCTCTAAAT CAGCTGAAGA AGCTATCACT GCTAAAGGTG	9480
GTTCAGTAGA AGTCATCTAA GAGAGGTGAC CTATGTTTTT TAAATTATTA AGAGAAGCTC	9540
TTAAAGTCAA GCAGGTTTCA TCAAAAATT TATTACAAT TTTTATCGTT TTGGTCTTTC	9600
GTATCGGAAC TAGCATTACA GTTCTGGTG TGAATGCCAA TAGCTTGAAT GCTTTAAGTG	9660
GATTATCCTT CTTAAACATG TTGAGCTTGG TGTGCGGGAA TGCCCTAAAA AACTTTTCGA	9720
TTTTTGCCCT AGGAGTTAGT CCCTATATCA CCGCTTCTAT TGTTGTCCAA CTCTTGCAAA	9780
TGGATATTTT ACCCAAGTTT GTAGAGTGGG GTAAACAAGG GGAAGTAGGT CGAAGAAAAT	9840
TGAATCAAGC TACTCGTTAT ATTGCTCTAG TTCTCGCTTT TGTGCAATCT ATCGGGATTA	9900
CAGCTGGTTT TAATACCTTG GCTGGAGCTC AATTGATTAA AACTGCTTTA ACTCCACAAG	9960
TTTTTCTGAC GATTGGTATC ATCTTAACAG CTGGTAGTAT GATTGTCACT TGGTTGGGTG	10020
AGCAAATTAC AGATAAGGGA TACGGAAACG GTGTTTCCAT GATTATCTTT GCCGGGATTG	10080
TTTCTCAAT TCCAGAGATG ATTCAGGGCA TCTATGTGGA CTACTTTGTG AACGTCCCAA	10140
GTAGCCGTAT CACTTCATCT ATCATTTTCG TAATCATTTT GATTATTACT GTATTGTTGA	10200
TTATTTACTT TACAACCTAT GTTCAACAAG CAGAATACAA AATTCCAATC CAATATACTA	10260
AGGTTGCACA AGGTGCTCCA TCTAGCTCTT ACCTTCCGTT AAAAGTAAAC CCTGCTGGAG	10320

545

TTATCCCTGT TATCTTTGCC AGTTCGATTA CTGCAGCCTG CCGCTATTCT TCAGTTTTTG	10380
AGTGCCACAG GTCATGATTG GGCTTGGGTA AGGGTAGCAC AAGAGATGTT GGCAACTACT	10440
TCTCCAAC TG TATTGCCAT GTATGCTTTG TTGATTATTC TCTTTACATT CTTCTATACG	10500
TTTGACAGA TTAATCCTGA AAAAGCAGCA GAGAKCCTAC AAAAGAGTGG TGCCTATATC	10560
CATGGAGTTC GTCCTGGTAA AGGTACAGAA GAATATATGT CTAAACTTCT TCGTCGTCTT	10620
GCAACTGTTG GTTCCCTCTT CCTTGGTGTG ATTTCCATT TACCGATTGC AGCTAAAGAT	10680
GTATTTGGTC TTTCTGATGT TGTGCTTTT GGTGGAACAA GTCTCTTGAT CATTATCTCT	10740
ACAGGTATCG AAGGAATCAA GCAATTGGAA GGTACCTAT TGAAACGTAA GTATGTTGGT	10800
TTCATGGACA GAACAGAATA AAAGTATTTA CTGAATCAGT AAATACTGAG GGAGTGGAGG	10860
TTTAAACTCT GACATTTGTA AGAGTTGGAT CTCCCTCTT CTATTTTGT TTTAAATCGG	10920
GGTGAAAAGA CTTTTTGCTT CTATTTAAA ATAAAATAAG GAGATCAAAT CATGAATCTT	10980
TTGATTATGG GCTTACCTGG TGCAGGTAAG GGAACCTAAG CAGCAAAAAT CGTAGAACAA	11040
TTCCATGTTG CACATATCTC AACAGGTGAT ATGTTCCGCG CTGCAATGGC AAATCAAAC	11100
GAAATGGGTG TTCTTGCTAA GTCATATATT GACAAGGGTG AATTGGTTCC TGACGAAGTT	11160
ACAAATGGAA TCGTAAAAGA ACGCCTTTCA CAAGATGATA TTAAAGAAAC AGGATTCTTA	11220
TTGGATGGTT ACCCAGTAC AATTGAACAA GCTCATGCC TGGACAAAAC ATTGGCTGAA	11280
CTTGGCATTG AACTAGAAGG TGTATCAAT ATTGAAGTGA ACCCTGACAG CCTTTTGAA	11340
CGTTTGAGTG GCGTATCAT CCACGCGTA ACTGGAGAAA CTTTCCACAA GGTCTTTAAC	11400
CCACCAGTTG ACTATAAGA AGAAGATTAC TACCAACGTG AAGATGATAA GCCTGAGACA	11460
GTAAAACGTC GTTTGGATGT TAATATTGCT CAAGGAGAAC CAATCATTGC TCACTACCGT	11520
GCCAAAGGTT TGGTTCATGA CATCGAAGGT AATCAAGATA TCAATGATGT CTTCTCAGAT	11580
ATTGAAAAAG TATTGACAAA TTTGAAATAA AGCGTTTTC ACACCTTGCAA AAATCCGCTA	11640
CAAATGTTAT ACTGAGATAG TCTGACTTAT AATTGTTGTC TCTGTGTCTA GAGGCATCGA	11700
ATCGAAATTT ATGGAGGTGC TTTTCCGTGG CAAAAGACGA TGTGATTGAA GTTGAAGGCA	11760
AAGTAGTTGA TACAATGCCG AATGCAATGT TTACGGTTGA ACTTGAAAAA GGACATCAGA	11820
TTTAGCAGG G	11831

(2) INFORMATION FOR SEQ ID NO: 66:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10726 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

546

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 66:

CCCCGCATTT GAAAGCTATT CGTGAAGGAT TTATGATGGC AATGCCTTTG ATTTTAGTCG	60
GCTCTTTATT TCTTATTCTA ATCAGTTGGC CTCAAGAGGC TTTTACAAAT TGGCTGAATA	120
GTGTTGGATT GCTAAGTATC TTGACAACTA TGAATCAGTC AACAGTAGCG ATTATCTCCT	180
TGGTCGCTTG TTTCGGTATT GCCTACAGGT TGTCGGAAGG ATATGGTACA GATGGTCCGT	240
CGGCAGGGAT CATAGCCTTA TCCAGTTTGG TATTGATGGC ACCTCGTTTT TCGAGTATGG	300
TTTATGATAA AAATGGGGAG CAGGTCAAGC AGTTATTTGG CGGCGCAATA CCATTTTCTA	360
GCCTGAATGC ATCTTCTTTG TTTATGGCGA TTACTATTGG ATTGGTTACA GCAGAGATTT	420
ATCGTATGTT TATCCAGCGC GGAATTACGA TAAAAATGCC AAGTGGTCTC CCAGATGTAG	480
TAAGTAAATC ATTTTCAGCT CTTTATCTG GTTTTACTAC TTTTGTTTTG TGGGCTTTGG	540
TCTTAAAGG TCTTGAAGCG GCAGGAGTTG CAGGAGGTCT CAACGGACTC CTAGGTGCAA	600
TTGTTGGAAC ACCGCTTAAG TTAATTGCAG GAACGCTTCC AGGTATGATT CTATGTGTTA	660
TTGTAAACTC ATTCTTTTGG TTCTGTGGAG TTAATGGGGG ACAAGTTTAA AATGCTTTTG	720
TAGACCCAGT TTGGTTACAA TTTACTACAG AAAACCAAGA AGCTGTGGCT GCAGGACAAA	780
CACTCCAACA CATTATTACA TTACCGTTTA AAGATTTATT TGTATTTATT GGTGGCGGTG	840
GAGCGACTAT TGGTCTTGCG ATTTGTCTCT TCCTATTTAG TAAGAGTCGT GCGAATAAAA	900
CATTAGGTAA GCTAGCTATT ATACCGTCTA TTTTAAATAT CAATACAGCT ATTCTATTTA	960
CGTTTCCAAC AGTTTAAAT CCGATTATGC TGATTCCGTT TATTGCTACT CCTACAATCA	1020
ATGCCTTGAT TACCTATGTA TCAATGGCTG TAGGATTAGT ACCCTATACA ACAGGTGTAA	1080
TCCTTCCGTG GACAATGCCA CCGATTATAG GAGGCTTCCT TGCAACAGGG GCTAGTTGGC	1140
GAGGAGCTCT ATTACAAGTT GTTTTGATTT TGGTTTCTGT AGCAATTTAT TATCCATTCT	1200
TCAAAATTGC AGATAAACGC AATCTTGAAA AAGAAAAAGC TACTGTTGGA GGGAAATAAG	1260
ATGGTTATCA GAGTATTTGA TCAACAGAAA AATACTTATT CTAGCTTTGC CTTAGAGGAA	1320
TTAAGTTACT ATATGAATCG GGTCTTTAAG ACTAACATAG AGCTTGTCGA GGAGAAGGAA	1380
GCGGATATTT TTGTAGGATT AGTCAATAAA GAGGACAGAA AAGACCATGT TCTTATCTCA	1440
TTAGACAAGG GTAAGGGGAG AATTGAGTCT AATACAATTG TAGGTTTACT TATTGGAATT	1500
TACCGAATGT TTCATGAATT TGGGGTTGTG TATACTAGAC CAGGGCGCAG ACATGACTTT	1560
GTCCAGAGT TACGATTGA AGATTTTTTA GATAAACAGC TATCTATAGA TGAACAGCC	1620

AGTTACTATC ATAGGGGAGT ATGTATAGAG GGAGCGGATT CATTTGAAAA TATACTAGAT	1680
TTCATTGATT GGCTACCTAA GATTGGGATG AACAGTTTTT TCATCCAGTT TGAAAAATCCT	1740
TACTCTTTTT TGAAACGTTG GTATGAACAT GAATTTAATC CATATCTAAA TAAAGAACAA	1800
TTTTCAAATG AATTAGTACA AGAATTGAGT GATAGGTTGG ATAAAGAATT GCAAAAAAGA	1860
GGTCTTATTC ATCATCGTGT TGGTCATGGA TGGACAGGTG AAGTTTtagg TTACTCTTCA	1920
AAATTTGGCT GGAATCAGG TCTTAGTATT TCAGAGGAGA AGAAACCTTA TGTCGCTGAA	1980
ATAAACGGGA AACGAGAATT GTTTAATACG GCTCCGATT TAACCAGCCT GGATTTTCA	2040
AATCCAGATG TAGCTGATAA GATGGTAGAA ATTATCAAGG ATTATGCCAA GAAAAGACCT	2100
GATGTTAACT ACTTACATGT ATGGTTGTCG GATGCTCGTA ATAATATTTG TGAATGCGAA	2160
AACTGTAGAC AAGAATTGGT TTCGGATCAG TATATTCGTA TTCTCAATCA ATTGGATAGG	2220
GCTTTAACGA GTGAGGGATT AGATACAAAG ATTTGTTTTC TGCTTTATCA TGAGTTGTTA	2280
TGGGCACCTC AGAAAGAAAA ATTAGATAAT CCTGAACGCT TTACCATGAT GTTTGCACCG	2340
ATTACAAGAA CATTTGAAAT GAGTTATGCA GATGTAGATT TTGACAATTC CATACCTACG	2400
CCTAAACCTT ATATGCGTAA TAAAATTATA CTTCCGAATT CTCTTGAGGA AAATTTATCT	2460
TATCTTTTTG AGTGGCAAAA AGCATTTAAA GGAGATAGTT TCGTATATGA CTATCCTTTA	2520
GGGCGTGCTC ATTTAGGCGA TTTAGGCTAT ATGAAAATTA GTCAAACTAT TTACAGAGAT	2580
GTATCTTATC TTTCCAACCT ACATTGAAC GGGTACATTT CGTGTCAAGA ATTACGTGCC	2640
GGATTCCTC ATAATTTTCC TAATTATGTC ATGGGGGAAA TGCTCTGGAA GAAGACAAGA	2700
AGTTATGAAG AATTGATTGA AGAATACTTT TCTGCTTTGT ATGGGGAAAA TTGGCAGTCT	2760
GTTGTTGAAT ATTTAGAAAA ATTATCCATT TATTCCTCTT GTGATTATTT TAATGCAATT	2820
GGCAGCCGTC AAAGTGATGT TTTAGCGAAT CATTATTATA TAGCTTACAA TCTAGCTGAT	2880
AATTTTTTAC CAATTATTGA GGAAAATATT TCTAAGTTAT TAAATAGTCA AAAGGATGAA	2940
TGGAAACAGC TCAGTTATCA TCGTGAATAT GTTGTTAAGA TGGCGAAGGC TTTATATCTT	3000
CAAGCAACTG GAAAACAAG GCAAGCTCAA GATGAATGGA GAAATGTGTT GAATTATATC	3060
CGTGGGCACG AATTGCTATT TCAATCTAAT TTGGATGTTT ATCGTGTAAT TGAAGTAGCA	3120
AAAAATTACG CTGGTTTCCA CTTATAAATC ATAAGTATAG AAAATGAACT AAGGTATTCA	3180
GAGAAGATTG ATCCTAAATA TTATGAAATT TAAGGATTTT TAAGATATTT AGGGTCAACT	3240
TTCTATTTAT ATCGTAGCGA AGTCATTTTA ATAATGATGT GTAAAAGATG GATCAAGATT	3300
GAGGAGGAAG AAAGATGAAA TCAAAAGAAG AAATAAATAT GCTTGTTTTT ACAATTGTCG	3360

548

CTTACGCAGG AGATGCAAGG TCAGATTTGA TGGATGCTTT GGCCTTTGCG AGAGATGGAT	3420
ATTTTGAACA GGCAAGAGAA TTGGTTGAGT CTGCAAACGA CTC AATAGTG TCTGCCCATC	3480
GAGAACAGAC TAATTTATTA GCGGAGGAGG CATATGGAGA TAATTTTGAA GTGAGCTTTA	3540
TTATGATTCA TGGTCAAGAT ACTTTGATGA CAACGATGCT ATTGTATGAT CAGGTAAAGT	3600
TTTTTATGTA TGAATATGAA CGAATTCGAA AGATTGAAGA ACATATTGGT TTGCAATGAG	3660
GATTAGTCAT GGAAAAATTA CAGGTAAAG CCTTACCGAA GGAGTTTTTA TTAGGAACTG	3720
CTACCGCTGC TTATCAAGTA GAGGGTGCAA CTAGGGTAGA TGGCAAAGGA ATAAATATGT	3780
GGGATGTTTA TTTGCAAGAA AATAGTCCGT TCTTACCAGA TCCAGCTAGT GATTTTTATT	3840
ATCGTTACGA AGAGGATATA GCTTTGGCGG CAGAACATGG TTTGCAGGCT TTGCGTTTAT	3900
CTATTTCTTG GGTTCGTATA TTCTCTGATA TAGATGGGGA TGCTAATGTA TTAGCTGTTC	3960
ATTATTACCA TAGAGTTTTT CAGTCTTGCT TAAAACATAA TGTGATTCCG TTTGTTTCTT	4020
TACATCATTT TGATTCGCCT CAGAAAATGT TAGAAACAGG GGATTGGTTG AACAGAGAGA	4080
ATATTGATCG TTTCATACGA TATGCTCGCT TTTGTTTCCA AGAATTTACA GAAGTCAAGC	4140
ATTGGTTTAC AATCAATGAA CTGATGTCTC TTGCTGCAGG TCAATATATA GGAGTCACT	4200
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TGGCGCATGC TCTTGCAGTC CTCGAATTTT ATCAATTAGG GATTGAGGGA AAGGTAGGTT	4320
GTATTCATGC TTTAAAGCCA GGCTATCCTA TTGATGGGCA AAAAGAAAAA ATTTTGGCAG	4380
CTAAACGGTA TGATGTTTAT AATAATAAAT TTCTATTAGA TGGAACTTTT TTGGGCTACT	4440
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TTATTGAAGA TGGTGATTTA GAAATTATGA AGAGAGCTGC ACCTCTTAAT ACGATGTTTG	4560
GGATGAATTA TTATCGTTCA GAATTTATTC GTGAATACAA AGGTGAAAAT AGACAAGAAT	4620
TTAATTCAAC AGGAATAAAA GGACAGTCTT CTTTAAAT AAATGCTCTA GGTGAATTTG	4680
TAAAAAACC TGGTATCCG ACAACAGATT GGGATTGGAA TATTTATCCT CAAGGGTTAT	4740
TTGATATGTT GCTTCGTATC AAAGAAGAAT ATCCTCAACA TCCGGTCATT TATTTAACTG	4800
AAAATGGTAC AGCCCTTAAA GAAGTTAAGC CAGAGGGCGA GAATGATATT ATTGATGACA	4860
GTAAGAGAAT CCGTTATATT GAGCAACATT TACACAAAGT TTTAGAGGCT CGAGATAGAG	4920
GAGTCAATAT TCAAGGCTAT TTTATATGGT CTTTGCAAGA TCAATTTTCT TGGCGAATG	4980
GCTACAATAA GCGATATGGT CTTTCTTTG TTGATTATGA AACACAGAAG AGATATATTA	5040
AGAAAAGTGC TCTTTGGGTA AAAGGCTAA AACGGAATTA AGGTTAGCGA TTTGACTGAT	5100
GTTTAATATG TTTTAAATAT GAGGTTGAAT TTTTATAGG AGGAGTTTTA TGGATAAGCT	5160

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AGTCGCTGCC ATTGAAAAGC AACAAAGGAA ATTTGAAAAA ATTTCTACTA ATAACTATAT	5220
GATGGCTATT AAAGATGGAT TCATTGCTAC TATGCCTTTA ATTATGTTTT CAAGCTTTTT	5280
GATGATTATT ATTATGATTC CTA AAAATTT CGGAGTAGAG TTACCGAGTC CAGCTATTGT	5340
CTGGATGACA AAAGTGATA TGTAAACCAT GGGAGTTTTG GGTATTATTG TTTCAGGGAC	5400
TGTTGGAAG TCATTAGTTG GAAATGTTAA CAGAAAAATG CCTCACGGAA AGGTAATAAA	5460
TGATATTTCT GCAATGTTGG CAGCCATATG TAGTTATCTG GTATTAACTG TAACGCTTGT	5520
AGTTGATGAG AAGACGGGAT CTACAAGTTT GTCGACAAAC TATTTAGGAT CTCAGGATT	5580
GATAACTTCG TTTGTCAGTG CCTTTATTAC TGTAATGTT TACCGATTCT GTATTAAGCG	5640
AGACATTACT ATTCATTTAC CTAAGGAAGT TCCTGGGGCT ATATCACAAG CTTT TAGAGA	5700
TATTTTCCCT TTTCTTTTG TTTTACTTAT TAGTGGTTTG TTAGATATTG TATCTCGGTT	5760
TAGTTAGAT GTTCCTTTTG CCCAAGTATT TCAACAATA TTGACTCCTA TTTTAAAGG	5820
GGCAGAATCA TATCCTGCTA TGATGTTGAT TTGGTTTATG TGTGCTTTC TTTGGTTTGT	5880
TGGAATTCAT GGACCATCTA TTGCTTACC TGCTGTTACA GCTTTGCAAC TGAGCAATAT	5940
GGAAGAGAAT GCTCAACTTC TTGCAAATGG GCAGTTCCT TATCATTCTT TAACACCTAA	6000
TTTCGGGAAT TATATCGCTG CTATTGGAGG AACGGGGGCT ACCTTTGTTG TACCATTAT	6060
TTTGATTTTC TTTATGCGGT CTAACAATT AAAATCGGTA GGTAAGCTA CAATTACTCC	6120
TGTTTATTT GCGGTAAATG AACCTCTTCT ATTTGGTATG CCTGTTATTT TGAATCCCTA	6180
TCTTTTGTG CCTTTTGTGA TGACTCCACC AGTGAATGTA TTTCTAGGAA AGGTCTTTAT	6240
TGATTTCTTT GGAATGAATG GATTTTATAT CCAGTTACCT TGGACCTTTC CTGGTCCCTT	6300
GGGATTGTTA ATTGGAACGA ATTTTCAACT TATCTCCTTT GTATTTTAT CTTTGATTTT	6360
AGTTGTCGAC ATATTGATTT ATTTGCCATT CTGTAGAGCG TATGATAGAC AGTTACTGGT	6420
GAAAGAAGAT ATTGCAAGCT CAAATGATAT TATTTTAGAG GAGGATACAA GTGAAATAAT	6480
TCCTGGTGAG ATAGATGAAA TAAAAAGTAA GGAGTTGAAA GTACTGGTTC TTTGTGCAGG	6540
GTCTGGAACA AGTGCGCAAT TAGCCAATGC AATTAACGAG GGGGCTAACT TAACAGAGGT	6600
TAGAGTGATT GCGAATTCAG GAGCGTACGG AGCTCATTAT GATATTATGG GTGTTTATGA	6660
TTTAATTATT CTGGCCCCAC AAGTTCGGAG TTATTATAGA GAGATGAAGG TGGATGCAGA	6720
AAGATTAGGT ATTCAGATAG TTGCTACCAG AGGAATGGAA TATATTCATT TAACAAAGAG	6780
TCCAAGTAAA GCCTTACAAT TTGTATTGGA GCATTACCAA GCTGTGTAGT AAGTTTTTCC	6840
ATCITTTTAT TGAGTAAAGA TTTTGTTTAC AGATAGGCTT GGATTAAAA ACGTTCCCCC	6900

550

TTTTTTAATA TAAGAATCCC TCTTTCACAA TTGTAAAAAG AGGGATTTTG TATTTTATCT	6960
CTTAGACCAA GTTCTCTTCA TAAAGAGAAG GAGGATTGGG TAAATCTCCA AGCGCCCTGC	7020
AATCATTGCA AAGGATAGGA GAATTTTGA GATGGGACTA AAGATTGAGA AACTAGAAGT	7080
GGTTCCTAGA ATAGGCCCGA TATTATTGAA ACAGCTAAAG ACAGCGCTGG TCACGACCAG	7140
AAAATCATTG CTATCTAGGC TGACAATAAA GATAAGCGCT AGCAAAATCA TAGCATAGAT	7200
GACAAAGTAC TTGAGAATCT TATGCTGGGT ATCTTTGTCA ATCACCCTTT TATTAACATG	7260
GAGGGTCAAA ACACGGTGGG GCGATAGGAT TGACAAAATT TGGTTTTTGG CAATTTTGA	7320
AAGGATGAGG CCTCGAATAA TCTTGAGTCC ACCTGCAGTT GATCCAGCAG AGCCACCGAT	7380
TGCCATGAGG AAAAGGAGGA TAAACTGGGA GAAGAGGGGC CAGTTGGTAA TATCTCCATA	7440
TCCAAAACCA GTTGTGTAA TGATGTTGGA AACCTGGAAG AAGGTCATTT CAAAGCTCTT	7500
TGAAAACCTT GGTAGAGGT AGAGGGTGTT GAGGCTAATC AAGCCTGTAG AAACCAGTAC	7560
AATGACCAAG TAAGCCCTAA GCTCTTCATC TCCAAAGAAG GCCTTGATGC GACGGAGCAT	7620
GAGGTAGTAG TAGAGGTTGA AATTACTCC AAAAACCAGA ACTCCGATAC TGACCAGATA	7680
GGTAATCAGT GAGCTGCCAT AGTGGGCAAT TCCGTCGTTA TAGACGGTAA AGCCTCCAGT	7740
TCCCGCTGTC CCCATAGCAA TAACAAAAC ATCGTAGAGA GGCATACCGG CTAGATAATA	7800
GATGATGACA AAGAGGGAGA AGAGAGCTAG ATAAAGGAGA TAGAGAATCT GGCAGTGTT	7860
TTTGTAGTTG GATACAACCT TGCCAAAAC AGGACCTGGA ACCTCAGCCT TCATCACCTC	7920
TAGGTGGCTA TTTTGGCAT TGTCATAAT AGCAAGTGCA AAAACAAGCA CTCCCATCCC	7980
TCCAATCAAG TGGGTAAAAC TTCGCCAGAA GAGGAGGGAA CGGCTGAGAA CCGAAACGTC	8040
GTGCAAAATA CTGCTCCAG TAGTTGTAAA TCCAGAACTA ATTTCAAAA AGGCATCAAT	8100
AAGGCTGGGG ATTTGCCAG AAAAGACAAA GGGGAGACCA CCAAAGAAAG ACCAAAGGAT	8160
CCAACAGAGG GCAACGATCA AGACTCCCTC CTTGGCATAA ATCCGTTGAT TTTTGGCTT	8220
CTGTAAACTC CCTGAACCGC CTAACAATAC GAGAATCCCT ATGGTCGAAA AGAGGGCTGT	8280
AAAGACTTGG CTCGATTAC GGTAAATAGAC AGCAATCGCA ACAGGAACCA AAAGAAGAAC	8340
AGCTTCAATC AAAAGTAATT TTGAAAGGAG GTAACGAATC ATACTTTTAT TCATTTCTTA	8400
CCTCGCGATC AAGTCATAAA TCTTGGTGAT GTTGGCAAC AAGGTTGTTA CTAGGAGCTT	8460
GTCTCCAACT TCCAACATAT CCTCCCCAGT TGGGAAAATA GTCTTGCCCT TTCGAATAAT	8520
GGCTGCAATA AGAACCCCTT TTTTCAATTT CAGTTGAGAA AGAGGTTTGG CAGTCATTTT	8580
ATTGGCTTCC TTGATATGGA ATTGCAGGTT TCGATTGCG CCATTGGCTA GATGGTGCAT	8640
AGCTTGAAGG TCTGAATACT GGGCATTAAC TCGACCACGA ATAAAGTGCA TAATCGTATC	8700

551

TACAGCGATG CTTT TAGGTG TGATGATACT TGAAAAATCA GGCGCATTGA TAATCTCGAG	8760
GAGACTGGTA CGATTGACCT TAGTAATATT TTTCTGTACA CCTACCCCTGT CAAGGAACAT	8820
AGATGTAATC AGATTTTCCT CATCGACTCC TGT TAGAGTC GCAACGGCAT CATAGTGTG	8880
AGCACTTTCT TCCAGCAGGA TATCTTTTGC GGTTC CATCT CTTGAACGA TGTAGAGATT	8940
TGGGAATTC TCGCTAAAGA AGCTGGCGAT TTCAGGATTG ATTTCAATGA CTTTGTATC	9000
GATACGACTA TCTTTGAGAA TACCAAGTAG ATAATAGGCA ATTCTACCTG CCCC AACGAT	9060
GAGAAGGCTC TTCACGGCGC GTGATTTAAA ATAATTATGG AAGAGTATCA TATCGACACG	9120
GTTACCACTG ACAAAGATTC TATCTTTATC CTGTACAGTC ATGTCACCGC TTGGAATGAT	9180
AATTTGATGA TCCCTCTCTA TCGCACAGAC AATGACATTA CCAAATTTT TACGAAAATC	9240
AGAAATGGGC ATTTGGCAAA GACCGCTGGT GGACTTGACG ACAAATTTCCA TGAGGCTAAC	9300
GCGTCCACCA GCAAAGCGTT CGACAGACAG GCGCTTGGGG AAGTCAATGA TATTCGCGAT	9360
AGCGCGGGCA GCCAAGAGCT CAGGATTAAC GATAAGAGAA AAACCGAGAA TATTCTTTTC	9420
CTTGAAATAA GAGTTAGAAT ATTCAGGGTT CCGCACCCGA ACGATAGTTT CTTTAGCTCC	9480
CATTTCTGTG GCTAGAACTG CTGCAATCAT GTTGACTTCA TCGTGCTCAG TCAGGGCGAT	9540
AAAGATATCA CAATCTTGA CGCTGGCTTG CTCAAGAATG GCAAAATCGG CCCC GTTACC	9600
AAGGATACCA ATGATATCAA AGCGACTGAC AATATGATTG AGAACAGCTT CGTCTTGCTC	9660
AATCAGCAAA ACATCATGCT TTTCTGCAAC CAAGGAGCGA CAGAGGGCAA AACCAACTTT	9720
TCCCCCTCCG ACAAGGATAA TTTTCATAAT AAAACCTACT TTTTCATGAT GTAACATCA	9780
TACCCTTTTT CAAGAAAAAA TGCACCTACT AGCTAATAAC AAGAGTTTTT AGTGAAAATT	9840
CGCTATAAGG TAAACTATA CCCTAACCAA TTGAAATAGC TATTAGCGAC TTTCTCTGAA	9900
ATATGGTATG ATAAAGGATA TACAAGGAGA TAAATGAAT AATAATTTAC TGGTATTACA	9960
ATCAGACTTT GGTCTGGTTG ATGGTGCGGT ATCGGCTATG ATTGGAGTGG CTTTAGAAGA	10020
GTCTCCAACC TTA AAAATAC ATCACTTGAC GCACGATATC ACGCCTTATA ATATTTTGA	10080
GGGAGCTAT CGTCTCTTTC AGACGGTGA TTA CTGGCCT GAGGGAACGA CGTTTGTATC	10140
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TCAATACATT GTCACGCCAG ATAATGGGAC GCTTTCCTTT ATCAAGAAAC ACGTTGGCAT	10260
TGTAGCCATT CGTGAGATTT CTGAGGTGGC CAATAGGCGT CAAAACACAG AGCATTCTTA	10320
TACCTTCCAC GGTCGTGATG TCTATGCCTA TACTGGTGCT AA ACTGGCCA GTGGTCACAT	10380
TACTTTTGAG GAAGTAGGGC CAGAGCTCAG TGTGGAACAG ATTTGTAGAGC TTCCAGTCGT	10440

552

AGCGACCATC ATAGAAGATC ATCTGGTGAA GGGAGCCATT GATATTCTGG ATGTGCGTTT	10500
CGGTTCGCTT TGGACCTCTA TCACACGGGA AGAATTTTAC AAGCTGGAAC CAGAATTTGG	10560
TGATCGTTTT GAAGTGACCA TCTATCATGC TGATATGCTG GTCTATCAAA ATCAGGTTGT	10620
CTATGGCAAA TCATTTGCAG ATGTGAGAAT TGGGCAACCs ATcTTTACrC TCAGCaTCTt	10680
CGATTAGCTG GGCAATTCGT TCTAGTTGGA TTTCTGCAAT CAAGGT	10726

(2) INFORMATION FOR SEQ ID NO: 67:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7163 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 67:

TTATCTTTAA CGATATCAAT CAAGATCTGG TCAATAAAGG GATTGGGGCT TATCGTGAAG	60
TTGGCATCCA AGCCCATGGA TATGTCTGTG ACGTGACAGA CGAGGACGGT ATCCAAGCCA	120
TGGTCAAGCA AATCGAACAA GAGGTTGGTG TCATTGACAT CCTCGTTAAT AACGCTGGTA	180
TTATCCGCCG AGTTCCAATG TCGGAAATGA GCGCCGCTGA TTTCCGTAAG GTCATCGATA	240
TTGACTTAAA CGCACCATTT ATCGTTTCAA AGGCAGTTAT TCCTTCTATG ATAAAGAAAAG	300
GGCATGGAAA GATTATCAAT ATTTGTTTGA TGATGAGCGA ACTGGGACGT GAAACAGTTA	360
GCGCTTATGC TGCTGCTAAA GGGGGCTTGA AAATGTTGAC CCGCAACATT GCGTCTGAAT	420
ACGGTGGAGC CAATATCCAA TGTAACGGAA TTGGACCGGG TTATATTGCC ACTCCTCAAA	480
CAGCACCTCT TCGTGAATTG CAAGAAGATG GTTCTCGCCA CCCATTTGAC CAGTTCATCA	540
TTGCAAAAAC ACCTGCTGCA CGTTGGGGAA ATACTGAAGA TTTGATGGGC CCTGCTGTCT	600
TTCTCGCTAG TGATGCCAGC AATTTTGTCA ATGGCCACAT CCTATATGTA GATGGCGGTA	660
TCTTAGCCTA CATCGGAAAA CAACCTGAGT AAAAATAGAA AGAAGATCTT ATGAAAATCG	720
CATTAAATCAA TGAAAATAGT CAAGCTAGCA AGAATCACAT TATTTACGAT AGTCTAAAAG	780
AAGCGACAGA TAAAAAAGGC TACCAATTAT TTAACATATG TATGCGTGA GAAGAAGGAG	840
AAAGTCAATT AACTTATGTG CAGAACGGAC TAATGGCTGC CATCCTTTTA AATACAAAGG	900
CAGTTGACTT TGTGTGTACC GGCTGTGGTA CGGGTGTAGG GGCTATGCTT GCTTTAAACA	960
GCTTCCCTGG TGTGTCTGT GGTCTAGCAG TGGACCCAAC TGACGCTTAC CTTTATTCTC	1020
AAATCAATGG TGGTAACGCC TTGTCTATCC CTTATGCCAA AGGATTTGGC TGGGGGCGAG	1080
AACTGACCCT CAAATTGATG TTTGAACGCT TATTTGCTGA AGAAATGGGC GGTGGCTACC	1140

553

CAAGAGAACG TGTAATCCCT GAACAACGCA ACGCTCGTAT CTTAAACGAG GTGAAACAAA	1200
TCACCCACAA TGATTTGATG ACCATCCTTA AAATAATCGA CCAAGACTTC CTCAAAGACA	1260
CCATCTCTGG CAAATACTTC CAAGAATACT TCTTTGAAAA CTGCCAAGAT GATGAAGTTG	1320
CTGCTTATTT GAAAGAAGTA TTAGCCAAGT AAAGCTATTC TAAACCAGAA AGGAACTAAT	1380
GGATGACGAA AATATTACTG TTTGGCGAAC CATTAAATCG AATTTACCA TTAGATGCCA	1440
CCAGTATCGG CGATCATGTT GCCAGTTCGA CTTATTTTGG CGGATCAGAA ATTAACATCG	1500
CTTGTAATTT GCAAGCCCTG GGTATCTCAA CGAAAGTTTT TACCGCACTC CCTGCCAACG	1560
AGATTGGAGA TCGTTTCTC ACATTCTTGA AACAGCACCA AATCGATACC AGTTCAATCT	1620
GTCGGCTTGG CGATCGAATC GGCCTCTACT ATTGGAGAA CGGCTTTGGT TGTGTCAAA	1680
GTGAAGTTTT CTACGATCGT AAGCATACGA GTATCAGCCA GATTCGGCCA AACATGCTAG	1740
ATATGGATTC TCTCTTCAG GGGATTAGCC ATTTTCATTT TAGTGGAATC ACCGTAGCTA	1800
TCGGTCAAGA GGTCCGTGCG ATCCTTCTCC TACTCTTGA AGAAGCCAAG CGCCGAGGAA	1860
TTGTCGTTTC AATGGATCTC AATCTGAGAA CAAAGATGAT TTCAGTCTTA GAAGCCAAGT	1920
ATGAATTTTC TAAGTTTGCA CGTTTACTG ACTATTGCTT CGGTATTGAT CCTCTCATGA	1980
TTGATGACCA AAATCTAGAG ATGTTTCCAA GAGACAGTGC TAGCCTAGAA GAGGTGGAAA	2040
ATCGCATGCG ACTTTTAAAA GAAGCCTATG GTTCAAGGC CATTTTCCAT ACCCTCCGCT	2100
CTAGTGATGA GCAAGACAAA AATGTCTATC AAGCCTATGC TCTAGAAGAA CTATTTGAAG	2160
AGTCTGTCCA ACTAAAACT GCAGTCTATC AACGAATTGG TAGCGGGGAT GCCTTTATAT	2220
CTGGTGCCCT TTACCAACTA CTCCATCAAT CCTCCCTAAA AACTACCATT GACTTTGCAG	2280
TTGCGAGCGC AACTCTCAA TGCCTCTTC CAGGAGACCA TCTCTCCACT TCCTCAACTA	2340
GTATTGAAAA TTTACTGGCA AATGCACAAG ATATCATTCG TTAGGAGAAT TACATGACCA	2400
AATCAGATAC GATTATTGAA CTAaaaaaac AAAAAATTGT CGCTGTTATT CGAGGAAATA	2460
CAAAGGAAGA AGGACTACAA GCCTCGATTG CTTGTATCAA GGGCGGTATC AAAGCTATTG	2520
AAATCGCCTA TACCAATCAG TATGCAGGAC AAATCATCAA GGAACCTGTA GACTTGTATC	2580
AGGACGATCA GAGTGTGTTG ATCGGTGCAG GTACTGTGCT TGATGCCGTA ACTGCTAGAG	2640
ATGCCATTCT AGCTGGAGCA AATTACGTTG TTTCTCCATC TTTCCATGCT GAAACTGCGA	2700
AAATGTGCAA TCTCTACAGC ACACCGTACA TTCCAGGCTG TATTACCCTC ACAGAGATCA	2760
CGACTGCACT TGAAGCCGGT AGTGAAATCA TCAAACTCTT CCCAGGTAGT ACTCTCAGTC	2820
CAGCATATAT CTCTGCAGTC AAGGCACCGA TCCCACAAGT TTCCGTAATG GTAACCGGAG	2880

554

GAGTCGGCCT	AAACAACATC	CCTCAATGGT	TCGCTGCTGG	TGCAGATGCC	GTTGGAATTG	2940
GTGGCGAACT	CAATAAACTC	GCTTCCCAAG	GCAACTTTGA	CCGCATCAGC	GAGATTGCCC	3000
AACAGTATAT	TACACTCAGA	TAAATCATA	ACTACCCGTC	TAACGGGTGG	TTTATCTCAG	3060
AGCTATAAGC	CCAAATCATC	AGCCAGCGCC	TAAAGACGCT	GGCTTTCACG	TTGTTCAAGC	3120
CTTATTGCTC	TTGACTCGTC	ACTTGCCTCT	TTAAGAGACT	TTGGTATTAC	TTACCACTAT	3180
CCCTAAAGGG	ATCCTCATAT	TCTTTTACAC	TCAATTTATC	TAGTGCTATA	GTAGATTGAA	3240
ACTGGAATAG	TACACCTCTG	CTTCTAAAAC	ATTGTTAAAA	ATCGATTTGA	CTGTCCTGAT	3300
CGATTTTGTC	CTGTCTTAT	TTCATTTTAC	TATATATCAT	ACTTTACTCG	TTCTCAAATT	3360
TTCATACTCA	TGAAGAAATC	ATCCACTCGA	TAATTTCTTT	AATCTTGACT	ATATTTCTTA	3420
ATTGTGGCTT	CATTAAGCCC	TACTGGACTT	ACATAATAAC	CTTCCTCCCA	GAAATGCCGA	3480
TTCCCAAAC	TGTACTTGAG	ATTGGCGTGT	TTGTCAAACA	TCATGAGTGC	ACTTTTGCCT	3540
TTTAAATACC	CCATAAAACT	TGAAACACTT	AGCCTCGACG	GAATACTGAC	TAACATGTGT	3600
ACATGGTCTG	GCATTAAGTG	ACCCTCGATC	ATTTCAACAC	CTTTATAACT	ACACAAGCGA	3660
TGAAATATTT	CGTCTAAACT	ACTTCTATAT	TGATTATAGA	TGACTTTTCG	TCTATACTTA	3720
GGGGTGAACA	CAATATGATA	GAACACCTCC	ACTTTGTGTA	TGATAAACTA	TGAGTCTTTT	3780
GTGCCATATT	TTTCTCCTT	TCGCTTTACA	ATTGGATTGA	ACACCTTTAT	TGTATCGCGT	3840
TTGGAGTTT	TTTGGTATAA	CCTTCGACGC	GCACCCGTAT	AGCGGGTGGT	TGTTTTGTCT	3900
CGCACCTCAC	GGAGCGAGAC	GGACTAATAT	AGTGGAGTGA	AATAGGATAC	GAACAAATTG	3960
ATTAGGAAAA	TCAAATGAAT	TTATAGAAAT	CTTTTAGCAG	TTATAACGTT	CTATTCTAGT	4020
TTCAAAACGC	TATAGTCACA	TAATAATGAA	GTAATAAAGG	ATAAGTATCA	ACTTATCCTT	4080
TTTTAAAGA	AAAATCCGAA	GATATTTGGC	CTTCTTCGGA	TTTTTTCTAT	TTTCCACAGT	4140
TTCATGTAAT	TCATCTAGAT	GATGAACAAA	TTAGTTGTTC	TTTCCTCTAC	GGAATAGATA	4200
AAATGCCCCA	AGTAGCAAGA	ACCCTAGACT	TGCCAAGATT	GACTGACCTT	CTCCTGTCTG	4260
AGGGAGATTC	TTTTGATCCG	AATGGTTCTT	TTCCCTTTCA	GATTTTTCCT	TTTCTTTTGA	4320
ATTCTGTACT	TGTGGCTGAG	CTGCTTGCTC	TAGCTTTTTA	AAGACTTCCT	GATCTGGAGC	4380
TGATTCCCTG	GTTCAGGAT	TATAGTAGGC	AATCTTATAT	TCATCCCCTT	CTTTTCGAAT	4440
GGTATAGACT	CCACGTTTCA	AAACTTGGAA	TTGGTTGGAA	ATAGTAGAGA	CAGAATCATC	4500
ATATTTTACA	ATGCCCCAAA	CTCCTTGTTT	AGCATCATAA	ACAGACTGAA	GGGTTTCGTT	4560
ATTTTCGATG	AGGCTACTTT	CTAACTCTTT	TATCATTTGA	TTGAAGGTGG	CACGATCCAC	4620
GTTAGGAATG	AGCATATAGC	CATAAGAATC	TCTATTTTGC	TTATGAGCCT	GACTAATCGT	4680

555

AAGAAATTCA TTTTCAACTT CCTTGTCTGA CTGTCCTTCA TTGATATCCT TCCAGGCTCC	4740
CTTTTGCAAA GCCTTACTCA TACTGATTGA ACTCTTCTTA AAGAAAAAGT AACCAATATT	4800
CTTTTTCGAA TCGAACGATT CTA AAAAGAC ACTTTGGGTT TCAGGATAAT CCTTTTCTTG	4860
TTCTGTAAGG GAGGCTTCTT TATCATTTGAC ATAGACTTTA TATGGATTAC CTGATTCCAG	4920
TTTCTCTGG TCAATTGTAG TTGCAGCAGT ATCTGTTGAA GTGTTTGGGA TATTGCTTCC	4980
TAAAAAGGCG ATCTTATCCT TTAGCATAAA CCAGCTCTTA TGAGCAGTCA ATGTTTGATT	5040
CCAGTTGGTG AAATCCATGG TTGCTGTCGC ATTGGCATCA TCTAGTTTGC TCGTTCCAAC	5100
GAAAGCAGAC GGTA AA ACTT TACCTGTATC GCTATCCGCT CTCTTAGCAT CCGTCTCTGT	5160
TGTACCAGGC ATCTTATATG GATTAACTGT TGGCCAGTAG CCATCGCTAT AGTGACTCAA	5220
ATCGCCATTG TAAAGATAGA ACATCCCATC ACTCGTATAC CAACCAGTT TATTTTCTTT	5280
GTTCATGTGT TCGTAATTCA AGGTACGACT GGAAAAGAGT GACAAGCCAA ATCCAAACCC	5340
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TCTTGGACA CTGCGACTC CTGCATCACT TAACAAGGAT TGCATCAAAC TGATATCCTT	5460
ATAAGTCTTC AAATCTTAA AGACATCATA ATA ACTATCC GATTGAACAA TGGTCTTCAC	5520
AAGACTCTGC AAACATTTGT TGGTTTCTCC TTCAGACATA TCCGCTATTG GGTGAATCCC	5580
TCTTAGTACT TCTACTGCGG CCACGTGCCC CTCGCTATTT GCACGACTGA TCGAGCGTCC	5640
ACGACTCATA TCCATCAACT CTCCATTAC CAGCAAAGGA GCAAACGATT TATCAATCCA	5700
GTGGTACATG GTTTGCATTT TATCTTTATC GATTGGATTG TTGGTCTTTT GAATGACTGG	5760
CAACAGTTGA GACAGGCCAT CAATCAAAC ATTCCCATAA GCACCCGTAT AGGCAACATT	5820
GGTGTGGTCG ATATAGGATC CATCTTGATA AAAACCTTCA CCTTGGTCTA CCAACTTGAA	5880
CAC TTGCTCA ATCGAGCGAA TGGTAGAAGA AATTTCTTGA TCATCCTTAC GCAGTAAACC	5940
AGCTATTACT TTTACCTTTC CCATATCAAC TAAGTTTCCA CCTAGAGCCT TGAATGGGTT	6000
ATCAGTCGTC TTTCGGAAT GTTCGGGATC TGGTACAAAT TTTTCAATCA CATCTGTATA	6060
TTTTTTAATT TCCTCATCAG AGAAGTATTC TTTCATCAGA GACAAGGTAT TGTGATGGC	6120
ACGAGGTGTA CCGATTTCAT AATCCCACCA GTTCCCAACA ATGCTCTTTT CACTATTGTA	6180
GACATGTTTA TGCATCCATT CCATGGAATC CCTGACTGTT CGAACGACAG TTTCATCTTG	6240
ATAATAACGA GAAGAAGGAT TGGTCACTTG CTTGGCCATC TCCTCCAATT TCCGATAAGT	6300
GGCAGTCAGA TTTGCAGACG TTTTATAATT TGAAAATTTT TCCACAAAT AGGTGCGGTC	6360
CGCCTGACTT GAAATACTGG ATAGGCTATC AGCTACCTTT CCTTCCAATT CCTGGTTTAA	6420

556

TTTGGCCATC TGTCATTTT TAGAATCATA GTATTGATTC CCAGCGATGA TGCCATTCCA	6480
GTCATCCAAA CGGTCTGTGT ATGCATCCTT AACAGAGGCC AGAATCTTCA AAGGAATCTT	6540
TTTCACTTCC TTGCCATCTT TACTGACAAT GACATTGGTT GTCCCTTCCT TAAGAGGTTC	6600
TAAAAATCCA TTTTGTACTG AAGCAACGTC AGGATTTTCT ACCTTATAAG TATAGTCCGC	6660
AAGAGAAAAA ACATGTTTTT TTCCAATTGG TAAATCAATC TTTTCCTCAA GCTGTTTATC	6720
TGTTTGAGAA TCCTCAGAAA GCTGGTCTGC TACCTCTACC AGCTCAATAT CCTTAAAGGA	6780
AACAGTCCCA GTTCCTGTTT CATAGAATAA CTCCAGCTTG ATTTTATCAA CATCTAAAGT	6840
CGGGCTATAG TCTGCTTCAA TGGTCTGCCA GTCCTTTGTT CCTGACGTCG TTGCAGAATT	6900
CCACAATCGC TTGTCCTTAC CACTTTCCTC AATGATACGA ACTTTGGCAA TCCCGATTTT	6960
ATTATCTGTT TTAATCTTGA AACGCAGTTT ATACTTTTTC TTAGCTTCAA TAGGAACCAT	7020
ACGGTGAAGC GCTGCCCTTA ATTTCTCATG GCTTGAGATA GTGATAGCCC CATCCTTAGC	7080
CTCAATGACT CGAGTTGAGG CATCTGCACT ATTCTTCTGG TCTACCCAAG CTGACCACCC	7140
CCTGAGCTTT GCTTCCTGTC CGG	7163

(2) INFORMATION FOR SEQ ID NO: 68:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9244 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 68:

CGTTATAACA TACATGTAAG CGGTACCCAA AATGGTGCCA AGTCAAAATT TTAAAGGAGG	60
AAAATACATG TCTTCACATC CAATTCAGGT CTTCTCAGAA ATTGGGAAAC TGAAAAAAGT	120
TATGTTGCAC CGTCCAGGCA AGGAGTTAGA AAATTTGTTG CCGGACTATC TTGAAAGGCT	180
TCTTTTGTAT GATATTCCTT TCTTGGAAGA TGCTCAAAAA GAACATGATG CATTTGCCCA	240
AGCTCTTCGC GATGAAGGAA TTGAGGTTCT CTACCTAGAA CAACTCGCTG CTGAATCATT	300
GACCTCTCCA GAAATCCGCG ATCAATTAT CGAGGAATAC TTAGACGAAG CCAACATCCG	360
TGATCGTCAA ACCAAGGTTG CTATTCGTGA ATTGCTTCAC GGCATCAAGG ACAACCAAGA	420
ATTGGTTGAA AAAACAATGG CTGGGATTCA AAAAGTTGAA TTGCCAGAAA TTCCTGACGA	480
AGCTAAAGAT CTAAGTACT TAGTTGAATC AGAGTATCCA TTTGCAATTG ACCCGATGCC	540
AAACCTCTAT TTCACTCGCG ACCCATTTGC AACAATTGGA AACGCCGTAT CGCTTAACCA	600
CATGTTTGCA GACACTCGTA ACCGTGAAAC ACTCTACGGT AAGTATATCT TCAAATACCA	660

557

CCCAATCTAT GCGGAAAAAG TGGATTGGT CTACAACCGT GAAGAAGATA CGCGTATCGA	720
AGGTGGAGAC GAGTTAGTTC TTTCTAAAGA CGTCCTTGCA GTAGGTATCT CTCAACGTAC	780
AGACGCAGCT TCTATCGAAA AACTTTTGGT CAACATCTTC AAGAAAAATG TTGGCTTCAA	840
GAAAGTTTTG GCCTTTGAAT TTGCTAACAA CCGTAAATTC ATGCACTTGG ATACTGTCTT	900
CACTATGGTA GACTATGACA AGTTCACAT TCACCCAGAA ATCGAAGGCG ACCTTCACGT	960
TTACTCAGTT ACTTACGAAA ACGAAAACT TAAAATCGTT GAAGAGAAAG GTGACTTAGC	1020
TGAACTTCTT GCTCAAAACC TTGGTGTAGA AAAAGTTCAT TTGATTCGTT GCGGTGGTGG	1080
CAATATCGTA GCAGCTGCGC GTGAACAATG GAACGACGGT TCTAACACTT TGACCATCGC	1140
ACCTGGTGTG GTAGTTGTTT ATGACCGCAA TACCGTGACC AATAAGATTT TGAAGAATA	1200
CGGGCTTCGC TTGATTAAGA TTCGCGGAAG TGAATTGGTT CGGGCCCGTG GTGGACCTCG	1260
TTGTATGTCT ATGCCATTTG AACGTGAAGA AGTGTAAATCG CTGTTGATA TTCGTCAATA	1320
GAAAATGTAA AAAATAGAAA GAGGAAATAA TAAAATGACA AATTCAGTAT TCCAAGGACG	1380
CAGCTTCTTA GCAGAAAAAG ACTTTACCCG TGCAGAGTTA GAATACCTTA TTGGTCTTTC	1440
AGCTCACCTG AAAGATTGA AAAAACGCAA TATTCAACAC CACTACCTTG CTGGCAAGAA	1500
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TATCGACCTT GGTGCTCACC CAGAATACCT CGGAGCAAAT GATATTCAGT TGGGTAAAAA	1620
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CGGATTCAGC CAACGTATGG TTGAAGAATT GGCAGAATTC TCAGGCGTTC CAGTATGGAA	1740
CGGTCTAACT GACGAATGGC ACCCAACTCA AATGCTCGCT GACTACTTGA CTGTTCAAGA	1800
AACTTCGGT CGCTTGAAG GCTTGACATT GGTATACTGT GGTGATGGAC GTAACAACGT	1860
TGCCAACAGC TTGCTCGTAA CAGGTGCTAT CCTTGGTGTC AATGTTTACA TCTTCTCACC	1920
AAAAGAAGCT TCCCAGAAA AAGAAATCGT TGAATTGGCA GAAGGATTTG CTAAAGAAAAG	1980
TGGCGCACAT GTTCTCATCA CTGAAGATGC TGATGAAGCA GTTAAAGATG CAGACGTTCT	2040
TTACACAGAC GTTTGGGTAT CAATGGGTGA AGAAGACAAA TTCGCAGAAC GTGTAGCTCT	2100
TCTTAAACCT TACCAAGTCA ATATGGACTT AGTTAAAAAA GCAGGCAATG AAAACTTGAT	2160
CTTCCTACAC TGCTTGCCAG CATTCACGA TACTCACACT GTTTATGGTA AAGACGTTGC	2220
TGAAAAATTT GGTGTAGAAG AAATGGAAGT AACAGACGAA GTCTTCCGCA GCAAGTACGC	2280
TCGCCACTTC GATCAAGCAG AAAACCGTAT GCACACTATC AAAGCTGTTA TGGCTGCTAC	2340
ACTTGGTAAC CTTTATATTC CTAAAGTATA ATTTTAGATA ATAAACCGTC TACCAACAGC	2400

558

TATGAGGGCT GCGACTAATA GCTTTAGTCC GGTCTCTTT TATGTAATGG TAATCTATTA	2460
TTTCTTATAA AATATGTGAA AAATCATTAA ATTGAAATCT AAACGCATTC TATTGAGTGT	2520
GATAAAGGAG AATTATGGC AAATCGTAAA ATTGTAGTAG CTTTGGGAGG AAATGCGATT	2580
CTTTCTTCTG ACCCATCAGC AAAGGCTCAA CAAGAAGCTT TAGTTGAAAC AGCTAAGCAT	2640
CTTGTAAGAT TGATTAAAA TGGAGATGAT CTGATTATCA CTCACGGTAA TGGACCTCAA	2700
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CTCGACTCAC TTGTCGCTAT GACAGAAGGT AGCATCGGT TCTGGTTGAA AAATGCTTTG	2820
CAAAATGCTC TCTTGGATGA AGGCATCGAA AAAAATGTTG CCTCTGTTGT AACGCAAGTT	2880
GTCGTAGATA AAAATGATCC AGCTTTTGT AACTTGAGTA AACCAATCGG TCCTTTCTAT	2940
TCAGAAGAAG AAGCAAAAGC AGAAGCCGAA AAAAGCGGAG CGACTTTCAA GGAAGATGCT	3000
GGCCGTGGCT GCGTAAGGT CGTTGCCTCA CAAAACCTG TTGACATCAA AGAAATTGAA	3060
ACCATCCGTA CTCTTTTAAA TAATGGTCAA GTCGTCGTAG CTGCAGGTGG TGGCGGTATT	3120
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GTTGCCCAGC TGAAGAATA TATCAACAA GATCAGTTTG CACCAGGTAG CATGCTTCCA	3360
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TCCCTTGAAA ATCTAGGCGC CTTGATTGAA TCTGAAAGCG GAACAATTAT TGAAAAAGGA	3480
TAAGTTGTTT TACTAATAAG ATGTATTCTA TTTCTAGTAT CTTTATATCA AATTAGAAAT	3540
TATTCTTGAA AACATGTACA ATATTTCAA AGATACTAGT TTTAGACTTT AATATGGTAA	3600
AACAAATATA AATAGAAAGC GTTTTCTTGA ATGTTTATTT AAGAAAGTAG TTGGTTTTTT	3660
ACACTTTGTT AGACATCAGG AGGAAAAACA AATGAGTGAA AAAGCTAAAA AAGGGTTTAA	3720
GATGCCTTCA TCTTACACCG TATTATTGAT AATCATTGCT ATTATGGCAG TGCTAACTTG	3780
GTTTATCCCT GCGGGGCGCT TTATAGAAGG TATTACGAG ACTCAGCCTC AAAATCCACA	3840
AGGGATTGGG GATGTCCTCA TGGCACCAGT TCGGGCTATG CTAGGTACTC ATCCAGAGGA	3900
AGGTTGCTCT ATTAAGAAA CGAGCGCAGC GATTGATGTA GCCTTCTTCA TCCTTATGGT	3960
TGGTGGTTTC CTTGGCATTG TCAACAAAAC TGGTGCTCTT GACGTAGGGA TTGCCTCTAT	4020
CGTGAAGAAG TATAAGGGCC GCGAAAAAAT GTTAATTTTG GTACTGATGC CTTTGTTTGC	4080
CCTCGGTGGT ACAACTTATG GTATGGGTGA AGAAACAATG GCCTTCTATC CACTCCTTGT	4140
GCCAGTTATG ATGGCCGTTG GTTTTGATAG CCTGACTGGT GTTGCAATTA TTTTGCTCGG	4200

559

TTCTCAAATC GGCTGTTTGG CATCTACTCT GAATCCATTT GCGACAGGTA TTGCTTCAGC	4260
GA CTGCGGGA GTTGGTACAG GGGACGGTAT CGTACTTCGT CTGATCTTCT GGGTTACCTT	4320
GA CTGCTCTT AGTACTTGGT TTGTTTACCG TTATGCGGAT AAGATTCAAA AAGATCCGAC	4380
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TT CATCTGTA GAATCTACAC TTAGCAGCAA ACAAAAATCA GTTCTCTTCT TATTTGTGTT	4500
GACATTCATC TTGATGGTAT TGAGCTTCAT TCCATGGACA GACCTTGGCG TTACCATTTT	4560
TGATGACTTT AATACTTGGT TGACTGGTCT TCCAGTTATT GGTAATATTG TCGGTTTCATC	4620
TACTTCTGCA CTAGGTACTT GGTACTTCCC AGAAGGCGCA ATGCTCTTGG CCTTTATGGG	4680
TATCCTGATT GGTGTTATTT ATGGTCTTAA AGAAGATAAG ATTATCTCTT CCTTCATGAA	4740
TGGTGCTGCT GACTTGCTCA GTGTGCTCTT GATCGTAGCG ATTGCTCGTG GTATTCAAGT	4800
TATCATGAAC GACGGTATGA TTACCGATAC AATCCTCAAC TGGGGTAAAG AAGGCTTGAG	4860
CGGTCTATCT TCACAAGTCT TTATCGTTGT AACTTATATC TTCTATCTAC CTATGTCATT	4920
CTTGATCCCA TCTTCATCTG GTCTTGCCAG CGCAACTATG GGTATCATGG CTCCACTTGG	4980
AGAATTTGTA AATGTCCGTC CTAGCTTGAT TATCACTGCT TACCAATCTG CTTCAGGTGT	5040
CTTGAACCTG ATTGCACCAA CATCTGGTAT TGTGATGGGA GCTCTTGACAC TTGGACGTAT	5100
CAACATTTGGT ACTTGGTGGG AATTCATGGG CAAACTCGTA GTCGCTATTA TTGTAGTGAC	5160
CATCGCCCTT CTCTCCTTG GAACCTTCCT TCCATTCTTA TAAATAGTG AGTGAGGTGA	5220
TTCCATGAAA ATAGATATAA CAAATCAAGT TAAAGATGAA TTTCTTATAT CATTA AAAAC	5280
CTTGATTTCC TATCCTTCAG TACTCAATGA AGGAGAAAAT GGAACACCTT TTGGACAAGC	5340
AATCCAAGAT GTCCTAGAAA AAACCTTAGA GATTGTGCGA GACATAGGTT TCACTACCTA	5400
TCTTGACCCCT AAAGGTTATT ACGGATATGC AGAAATCGGT CAGGGAGCAG AGCTTCTGGC	5460
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CCCTTCGCTC GCAGCTCTCT ATGCAGTAAA AAGCTTGCTG GACCAAGGTA TTCAGTTCAA	5640
AAAGCGCGTA CGCTTTATCT TTGGTACCGA TGAGGAAACC CTCTGGCGCT GCATGGCAGC	5700
CTACAATACC ATCGAAGAAC AGGCCAGTAT GGGCTTTGCA CCTGACTCAT CTTTTCCTCT	5760
GACCTATGCT GAAAAAGGC TTCTACAGGT CAAACTTCAT GGCCCTGGAT CGGATCAACT	5820
AGAGCTTGAA GTAGGAGGCG CCTTTAACGT TGTACCAGAC AAGGCCAACT ACCAAGGTCT	5880
CCTCTATGAA CAGGTTTGTA ACGGTCTCAA AGAAGCTGGT TATGATTACC AAACCACTGA	5940

560

ACAAACCGTA ACGGTTCTCG GAGTGCCAAA GCATGCTAAG GATGCTAGTC AAGGTATCAA	6000
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TCTTGCAACA CAAGCAGGTC AAGACGGCAC AGGAAGACAA ATCTTTGGTG ATATAGCAGA	6120
TGAACCTTCT GGTACCTAT CCTTTAATGT CGCAGGTCTC ATGATCAATC ATGAACGTTT	6180
TGAAATCCGT ATTGACATTC GGACTCCTGT CTTAGCTGAC AAGGAAGAAC TAGTAGAGTT	6240
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TCTATACGTC GCAGAAGACA GTAACTCGT TAGCACACTG ATGCAAATCT ACCAAGAAAA	6360
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AAATTTGTGA GCCTTCGGCG CCTTATTTCC AGGAGCGAAG CAGACAGAAC ATCAGGCAAA	6480
TGAATGTGCC GTTCTAGAAG ATTTGTACCG TGCTATGGAT ATTTATGCCG AAGCCGTCTA	6540
TCGACTTGCA ACTTAATCAG GCAACTGTTT CTACCAAAAA AAATCGACCG ATTAATGAAC	6600
TGCACCCCAA AAGTTAGACA GAATAAATCT AACTTTTGGG GTGTTTATT ATGAAATTGA	6660
GTTATGAAGA TAAAGTTTAC ATCTATGAAC TAAGAAAGCA AGGACAAAGC TTCAAACAGC	6720
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CTTTATAAAT CGCTTTTTC AGTTTGTGCA CTGGTGTTC GATAAACTCA AACTTTTGTG	6840
CCGTGGTATT GCCTGATTTT ATAGTATATT GAACTAGAA TAGTACACCT CTCCTCTPAA	6900
AACATTTTGA GAAATCGATT TGACTGTCTT GATCGATTG TCCTGTTCTT ATTTTCATTT	6960
ACTATATTG AGCCACTTCG TCTTTAACGG CTTTATTCAT AAGCTCTGT AATTTTCTT	7020
TACTATCAAT TACTTCTGAT TTTCCGTGT AATTATTGT AATAGGTTT AACTTACCTA	7080
ATTTCTCGAC ACGCTCATTA ATTTGATCTT TTTGAAGGC TGCTTATGTT TTTCTAAGA	7140
TTTTTTCAA AATATATTTA TCAGATAGCG GTTTGTCTTC TTCTTCAGCT TGGTTTTGT	7200
ATTAATTTGA AACATAAGGA ACAATCCTT CATAGTAACC TAATGCTCCC ATAAGTTCAA	7260
AAGCTTGTTT TCTAATTCAA ACCATTGCAA CTCAGATTTT AGCTTTTCAG ATAAATCCTG	7320
CTCATCCAAA TAATGACTTG AAATTAGTGC TGAACCTGTT TCTGTATCCT GTACAGGCTG	7380
AGCACCCATA CCAGCAAAAA ATAACTCGT TCCTAGCAAG ACCGAACAAG CTCTATTGC	7440
ATATGGCCTC AAAGAAAAAC GCTGCTTTCT CTCAAATTGA AATTCCTTCA TCCCATCTCC	7500
CATCATTCAT TATTACTGTA TATTTGTAT ATCAGAAATA GTTTGTATC ACAAATCTTT	7560
CTAGTTATTC CCTTATCATT CCTAATTAAG GGAGATAACA TACAATAATT TTTAGTTAAA	7620
TGTATATCGA TGTTTTTTGT TTTCTTAAT AAACGCAATA CAAAAGAGC CTGTTACCAA	7680
GCTCTTTGTA CTCAATGAAA ATCAAAGAGC AAATTAGGAA ACTAGCCACA GGTGCTCAA	7740

561

AACACCGTTT TGAGGTTGCA GATAGAACTG ACGAAGTCAG CTCAAAACAC TGTTTTGAGG	7800
TTGCAGATAG AACTGACGAA GTCAGTAACA TCTATACGGC AAGGCGACGC TGACGTGGTT	7860
TGAAGAGATT TTCGAAGAGT ATTAGTCTAT TATTTCTTCT CAGCGCGAAG GGCTGACAAG	7920
ATTTGTGTTT GGATATCATC CACACCATTT GGAGTATTG GTAAAAAGAT AGTTTGATTT	7980
CCTTTAGAGG CAAAGGTATT CAAGGTATCC AAATACTGGT TGGTCAAGAG GATAGACATG	8040
ATTTGTCTTT CTGTATGCC AACATTGGCT TCCTTGAGTT CGGTGATAGA CTCTGCCAAT	8100
CCATCCACAA TCGCCTTAGG TTGTTGGGCA ATCCCCACAC CATGAAGGCG GTCTTTTCTT	8160
GCTTCTGCTT CAGCTGCAGT GACAATTTTA ATCTTGTCAG CTTCGCCCAA TTCTTGCTCT	8220
GCGACCCGCT TACGTTGCGC CGCATTGATT TCATTTCATGG ATTGCTTAAC TTCTGCATCT	8280
GGTTCGACCT TGGTAATCAA GGTTCACAG ATAATGTAGC CGTAAGTGGT CATTTCTTCT	8340
GCTACTTGTT GTTGAACCTC AAGGGCAATC TCATCTTTT TCTCAAACAA TTCATCCAAG	8400
GTTAATTTTG GAACAGAAGA GCGAAGAGCA TCTTCGATAT AAGATTTAAT CTGAGATTCT	8460
GGACGTATGA GTTTATAGTA AGCATCTGTC ACGCTCTGCT CGTTGACACG GTACTGAGTC	8520
GCTACATTCA TCATAACGAA CACATTGTCC TTGGTCTTAG TCTCAACCAC AATATCACTT	8580
TGCAACAAGC GCAACTGAAT CCGTGCTGCA ATCGAGTCAA TCCCAAAAGG CAAGCGAATA	8640
TGAATACCGC TATTAGCAAC CTTTGGTAT TTCCCAAAGC GTTCAATAAT CGCCACCGAC	8700
TGCTGACGAA CCACATAAAC TGTACTCAGT GTGACTATCA CCAATAGGAG CACACAAACA	8760
ATCAGAAAAA TCATGAAAAA TATTGCCATA ATGGAACCTC CACAAGTATT TTTCTAGTAT	8820
TATAGCACAT TTAAGAAGG GTGTGCCGTT TTTACTGCGA TTTTCCTGA AATGTCAATA	8880
ATTAGAGGTG AATTGTCCTA TGTGCTCCA ATCTCTTGCT AAAATAACTC TTTATAAAG	8940
GCAATCGTTT CTTCTAAGGT TGGCATAAAT GGATTTCCTG GTGCGCAGGC ATCAATCAAG	9000
GCATTCTTAG AAAGGTATTC AAAGTCGAAA TCTTTTCTT CAATACCAAG TTCAGTCAGT	9060
TTCTTAGGAA TACCTACTGT CTCAGAAAGC TTCTCAATCT CAGCAATCGC ATAATCGGCA	9120
CATTCTTGAT CTGATTTACC TTCTACATGA AGTCCCAAGG CTTTGGCAAC ATTGCGGAAA	9180
GCTTCTGGTA CACGTTTAGC ATTTTCAGT TCTATACTG GTAGCAACAT GGCACAGCAC	9240
ACGG	9244

(2) INFORMATION FOR SEQ ID NO: 69:

- (1) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8898 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 69:

GATCTGAACT TTATCATCAT AACTTAATTT CATAATAAAA ACACCCCAAA AGTTAGATTT	60
TTTCTGTCTA ACTTTTGGGG TGTAAGTCAG TCATTGGACT GACGTTTTTT TGTATGCTTA	120
TTTTGATTGG ATGTAGTTGA TACCATCTGC TTTTGGTGCG ACTGCTTTTC CAAAGAAGGC	180
TGCTAAGACA AGAATTGTCA AAACATAAGG TGCAATTTGA AGATAAACCG CTGGCACTCC	240
TTGTAGGAAC GGCAATTGAG AACCGATAAC AGCCAAACTT TGTGAAAGTC CAAAGAAGAG	300
ACTGAAAGC ATAGCACCGA TTGGATTCCA TTTCCCAAAG ATCATCGCAG CAAGGGCGAT	360
AAATCCAGGT CCAACAATAG TTGTCACTGA GAAGTTAACT GAGATTGATT GCGCATAAAT	420
CGCTCCGCCA ATTCCACCTA GAAACCTGA AATAATAACC CCTAAATATC TCATCTTGTA	480
GACGTTGATT CCCAAGGTAT CCGCTGCTTG AGGATGTTCA CCGACAGAGC GGAGACGAAG	540
ACCAAATGTA GTCTTAAAGA GAATAAACCA AGCAAGGAAT GAGAAGGCAA TCGCCAGATA	600
ACCAAGTAGA CTAGTTGACT TGAAGAAGAT ATCACCATC ACTGGGATAT TTGCCAAGAC	660
TGGGAAATCA AAGCGTCCAA AAGTTTGACT TAGGTTGTCG GTTTGTCCTT TGTATAAAG	720
AACTTTAACT AAGAAAACAG CCAAGGCAGG CGCCATCAAG TTCAATACCG TACCGCTGAC	780
AACATGGTCT GCACGGAAAT GAACCGTCGC TGCTGCGTGG ATGATAGAGA AAACACTACC	840
AACCAATCCT GCTACAAGCA AGGATAGCCA TGGAGTTGCT GCTCCAAATT GTTCTGCAA	900
TTCAAGGTTA AAGACAATC CAGAAAAGGC ACCCATAACC ATAATTCCTT CAAGGCCAAC	960
GTTTACCACA CCACCAGTT CAGAGAAAAC ACCACCGATA CTTGTAAAGA TGAGAGGTGC	1020
TGAGTAAATC AGCATAGAAG ACACCAAGAG GGGGAGCAAG GTTATAATAG ACATCTTTAC	1080
TTACCTCCTT TAACTTGTTT TTTCGGTTTG ACAAAGCGTT CGATAAGGTA ATGAACACTG	1140
ACAAAGAAGA TAATAGACGC TGTTACAATG CTGACAAGCT CAGATGGTAC CTGCGCCGCA	1200
TTCATACCAG GAGCCCAAC TTGGAGAACG CCAAATAGGA AGGCTGCAAA GAGTATACCA	1260
ATTGGTGAGT TGGCCGCAAG CAAACTAACC GCCATTCCGT TAAATCCGAT AGCTAATGAC	1320
GAACCTTGAA CATAGACGTT CTGGAAGGTT CCCAAACCTT CAACAGCTCC ACCAAGACCT	1380
GCCAAGGCAC CTGAAATAAT CATAGATAGG ATAATAGTCC GCTTGGCAGA AATACCAGCA	1440
TATTCTGAAG CATGTGGATT AAGACCAACT GCACGGATTT CAAAACCAAG AGTTGTTTTC	1500
TTGAGCATGA ACCAAATAAC TGCAACGGCA ATGATGGCAA AGAAAATACC AATATTCATC	1560
CGTGAGTTAC CAGTCAACTC AGCCAACCAA GGTGTCTGAT AGGTTGCATT AGCCCAACA	1620

563

CGAATGGTCG AATCTGTACT TTGCATGAAG TCTTTAGGGA AAGCATGGAT AAAGGCATTG	1680
CCTACATACA AGACAATGTA GTTCATCATG ATGGTTACAA TAACCTCTGA CGTCCCTAGA	1740
TAGGCCCTAA GAATACCTGG AATCGCTCCG ACAATCCCAC CAGCAATCAA GGCAATCACG	1800
ATGGTTGCTA GAATCATCAA GGGACGGGCG ATATCTGGAT GCGACAGGGC AAACCAACCA	1860
CTGAGAATCC AACCTGCCAA AGCCTGACCA GGAAGTCCGA CGTTAAAGAA ACCAGCTCGA	1920
CTGGCAACGG CAAAACCAAG ACCAATCAAG ACCAGAGGAC CCATAGCACG GAAGATTCTT	1980
CCAATCCCAC GCAGACTGCC AAAGGCTGTA TAGAACAATT CTTCGTAGCC CCAATAGCA	2040
TCATAACCGA AGATCCACAT GACAATGGCT CCGAGTAAAA TTCCTAGGAA TACAGAAATC	2100
AAGGGAACCG AAATTTGTG TAATTTTTTA GACATCACTC TTCTCCTTTC CCAAGTTTCC	2160
ACCAGCCATC AAGACACCA GTTCTTGTTT ATTGGTTGTT TCTGGTGATA CAATACCTTG	2220
AATCTTACCA TCGTGGATAA CGGCAATACG GTCTGAGACG TTAAAAATCT CATCCAATTC	2280
AAAGCTGACA ACAAGGACAG CCTTGCCATT ATCACGCTCT TCAATCAAGC GTTTGTGGAT	2340
ATACTCAATG GCACCGACAT CCAACCCACG AGTTGGCTGG CTAACGATAA GGAGATCAGG	2400
ATCTCGATCA ATTTACGAG CAATAATTGC TTTTGTGTA TTCTCTCTG AGAGTCAGC	2460
TGCAGGAATC AATTCACCTG CAGCGCGAAC ATCAAACTCT TCCATCAGCT TTTTAGCATA	2520
AGAAGTAATA TTTGAATAAT TCAAAATTCC ATTTTACTA TGTGGTTCTT TATAGTAGGT	2580
TTGAAGGGCA ATATTTTTCAG ATATCATCAT TTCCAAAATC AAGCCATCAC GGTGACGGTC	2640
TTCTGGAACG TGCCCAACAC TTAGTTCTGT AATCTGACGT GGGTGCAAGC CTACAATTGA	2700
ATCTCCTTTT AGCTCAATGC TACCAGATTC AACCTTACGA AGACCTGTAA TGGCTTGAAT	2760
CAGTTCAGAC TGACCATTTT CATCAATCCC CGCAATACCA ACAATCTCTC CAGCAGGAAC	2820
ATCCAAGGAC AGATTTTAA CAGCTGGAAC ACCACGGTTT TCATTGACCA CCAAATCTTT	2880
GATAGACAAA ACCACTTCTT TTGGTTTAGA GGCTTGCTTC TCTGTTTTAA AGGAAACAGA	2940
ACGCTCTACC ATCATTTCCG CCAAATCAGC ATTGGTAGCC CCTGCAATTT CAACGGTTTC	3000
AATTGATTTT CCACGACGGA TAACTGTAAC ACGGTCAGAA ACTGCTCGAA TTTCATCCAA	3060
TTTGTGGGTA ATCAAGATAA TTGATTTTCC TTCTTTGACA AGATTTTCA TAATAGCCAT	3120
CAACTCATCA ATTTCTGATG GAGTCAAAAC AGCCGTTGGT TCGTCAAAGA TAAGGATATC	3180
AGCCCCCGA TAAAGTGTTT TTAATAATTC TACACGTTGT TGGGCTCCAA CTGAGATATC	3240
TGCTACCTTG GCAGAAGGGT CAACAGCTAA GCCATAACGT TCAGAAAGAG CCTTGATTTT	3300
TTTGCTAGCT CCAGCGATAT CTAGCACACC ATTTTGTAGT AATTCATAC CTAAAATGAT	3360

564

GTTTTCAGCC	ACTGTGAAGG	CTTCAACCAA	CATAAAGTGC	TGGTGAACCA	TCCCGATTCC	3420
CAAGCTAGCT	GCTTTAGATG	GGGAGTCGAG	ATTGACAAC	TGACCGTTGA	CCGCGATTTC	3480
ACCACTAGTT	GGTTCAGAA	GGCCTGCTAA	CATGTTCAAT	AGCGTGGACT	TACCAGCCCC	3540
ATTTTCTCCT	AAAAGTGCAT	GAATTTCAAC	TTTTCGTAGG	TGCAAGTTGA	TTTGTGCGTT	3600
GGCAACAAAT	CCACCAACA	CCTTGGTAAT	ATCACGCATC	TCAATGACAT	TTTCGTGTGC	3660
CATGTGCTCT	TCCTTTCAGA	GTCTTATTTT	ATTTCAATAA	AACTTGCTAG	TTTGTCTAGT	3720
AGCAAGCTTT	ACTTAGACAA	AATGACTTTG	TCTCAACTCT	TAAAAAGCG	GCCCTTGGCC	3780
GCTTCCTAAG	AAATGACTTC	CATCCATTAT	TTTTCAGGAA	CTTTTACGCT	TCCATCAAGG	3840
ATTTTAGCTT	TTGCATCTTC	GACAGCTTTT	TTACCTTCTT	CTGAAAGGTT	TGTTACTGCC	3900
AAGTCAACCC	CTTTATCCTT	CAATGAGTAA	ACGATCACCT	GACCGCCAGG	GAATTCTCCT	3960
CTTTCTGCCT	TGTTAGAAAT	ATCTTTTACA	GTGTACCAA	CTTGTTTCAA	AGTAGATACA	4020
AGAACAAAGT	TTGATTCTTT	GCCATCTTTA	GAAGTGATTT	TACCTTCTGC	TTCTTGGTCA	4080
CGATCAACAC	CGATAACCCA	AACTTTTTC	TTTTCAGGAC	GGCTTTCGTT	GAGAGATTTT	4140
GCCTCTGCAA	AGACACCTGC	ACCTGTACCA	CCAGCTACTT	GGTAAACAAT	ATCTGCACCG	4200
GCTGCGTATT	GTGCGGCTGC	AATTGTTTMA	CCTTTAGCCG	CATCACCAAA	TGAACCAGCG	4260
TAGTCAACTT	GGACTTTGAT	AGATGGGTCT	ACTGACGCAA	CACCAGCCTT	GAATCCTGCT	4320
TCAAAACGAG	AGATAACTTC	AGATTCGATA	CCACCTACAA	AACCAACTTG	TTTGTCTTAA	4380
GTGTGTTTTG	CTGCAGCCAC	ACCTGCAAGG	TAACTGACT	CATTATCAGC	GAAAGTTACG	4440
CTCGCAACAT	TCTTTTGGTC	TTTAATCACA	TCATCAATCA	AGACATAGTT	CAAGTCAGTG	4500
TGTTCTTTTG	CTGCATCTTT	AACTGCATTA	TTAAGGGCAA	AACCAACACC	GAAGATTAGG	4560
TTGTAACCTC	CAGCCGCTTG	TTGCAAGTTG	TTAGCGTAGT	CAGCTTCACT	TGTTGATTGG	4620
AAGTAAGTGA	AACCGTTATC	TTTGAAGA	TTGTGTTCTT	TACCCCAAGC	CTGCAAACCT	4680
TCCCAAGCTG	ATTGGTTGAA	TGATTTGTCA	TCAACACCAC	CAGTATCAGT	GACGATTGCT	4740
GCTTTTGTCT	TCACATCAGA	AGATGAAGCT	GCGTTACGAG	AAGAGCGGTT	ACCACATGCA	4800
GCAAGTCCAA	CTGCTGCCAC	TGCAACTAGG	CCAAGACCTA	GCCATTGTTT	CTTGTTCATT	4860
ACTGAACCTC	CTAAATAAGA	TGTGCAACGA	TGTGCAAGT	ATGGATTGGT	TGGCCACAAG	4920
GACCGTGCCA	CTCAGAGAGC	GACTCAGACT	AGTTTAAGTC	TGTAAAAGAG	TATGGAAGTA	4980
ATTCCCCGAC	CGTCATCTCG	ACCGTCGATT	TATCTTTTGC	GACTAAGGTC	ACTTTTAGAT	5040
CTTGTTCAAA	AAATTCAGCC	ATCACTTGGC	GACAAGCACC	ACATGGCGAG	ATCGGTTTTT	5100
CAGTTTGACC	ATAGACAATC	AATTCAGAAA	ATTCTCTTTG	GCCTTCAGAT	ATAGCCTTAA	5160

565

AAATAGCTGT TCTCTCACCG CAATTGGTCA AAGGATAGCT AGCATTTTCA ATATTCACCTC	5220
CCGTGTA AAC ACTTCCGTCT TTAGCTACTA AAAGTCTCC GATAGGAAAG TGAGAATAGG	5280
GGACATAGGC ATGTTTGCTG GTTTC AATTG CCAGTTCAAT CAACTCAGTA GTCGCCATCT	5340
GCCAATTCTC CTTTAAAAAT AGCTACCCCA GCTGACGTTT CGATACGGGT CGCACCTGCT	5400
TCGACAAAGG CAAGAGCATC TGCATAAGAA CGAGCTCCAC CGGCGGCCTT GACACCCATA	5460
TCAGATCCAA CTGTTTCACG CATTAATGTA ACATCTGCTA TCGTAGCACC ACCAGTTGAA	5520
AAGCCAGTAG ATGTTTTGAC AAAGTCAGCC CCAGCTTTTT GGGCCAATTG GCAAACAACA	5580
ACTTTTTCTT GGTCTGTGAG AAGGCAAGCT TCAATAATGA CTTTCACTAA CTTATCACCA	5640
CTTGCTTCCA CTAAGTCCG AATATCTGAC TCAACCAAGG CTAAATTACC TGATTGAGA	5700
GCTCCAACAT TGATCACCAT ATCAATCTCA TCTGCACCAT TTTGGATAGC TTTCTTTGTC	5760
TCAAATGCTT TCACGGCTGA AGTTGTTGCT CCCAAAGGGA AACCTACTAC TGTGCAAACC	5820
TTAATCATCTG TGCCTTCAAG TCCTTTTTTA GCATGTTCAA CCCAGGTCGG ATTAACGCAA	5880
ACACTGGCAA AGTCATACTC TCTAGCCTCA GACAACAAAC TATCAATTG TTTTCTCTT	5940
GCATCTTGTT TAAAAGCGT ATGATCTATA TATTTATTTA ATTTCAATTC GGTTTCCCT	6000
CCATTTAGGA GATGATTCT ACAATTTTAC GGATTTTTT CACTTCATCA CTTATTTTAA	6060
CACATTTTTG GAAATCTGTA ACTAGTTGAG GTGGAATTTT TTCATTTGTG TATACTTTTG	6120
CAACAATTTT ACCCTTTTGA ACGGAGTCTC CAATCTTCTT TTCAAAAACA ATTCCTGTTT	6180
CATAGTCCAA GGCATCAGAC TTAAGTGCAC GACCAGCACC CAGCCTCATG GCATAAAGAC	6240
CAAAGTCCAT AGCTGGAAGA GCTGAAATGA CACCCGTTTC CTGAGCAGGG ATTTCCACCA	6300
CATGAGCTAC ATTTACAGGA CGATAGAGGT CTTCCAAGTC TCCACCTTGG GCTTGCACCA	6360
TTTCCTCAAA CTTAGCCAGT GCTTGACCAT TCTCAAGATG TTGGTGAAGT TCTTCAACAG	6420
TTTTGTTAAC ATTTGCCAAA CCAAGCATAA TTTGAGCCAA TTCACAAATA AAGTGGGTAA	6480
TATCCTGACG TCCTTGACCT TGCAAAATCT CCAATGCTTC AAGGATTTC AGACGATTC	6540
CAATCGCTCG TCCCAAAGGC TGGCTCATAT CCGTAATCAC TGCTACTGTC TTCCGTCCAA	6600
CAACCTTACC AAGATCTACC ATAGTTGAG CCAACTCAGC CGCCTCATCA ACCGTCTTCA	6660
TGAAGGCACC CTCACCGACA GTCACGTCTA GCAAAATAGC ATCCGCCCTT GCCGCAATTT	6720
TCTTGCTCAT CACCGAACTC GCAATCAAAG GAATCGTGTC GACAGTTGCG GTCACATCAC	6780
GAAGGGCATA GAGAAGCTTA TCTGCTTTGA CCAGCTGGTC TGATTGCCCA ATGACAGATA	6840
CTCCAATATC CTGAACCTGA CGAATAAAAT CCTCTTGACT ACCTTCTACT TGATAGCCCT	6900

566

TAATGGACTC CAATTTATCA ATTGTTCCGC CTGTATGGCC AAGACCACGA CCACTCATTT	6960
TTGCTACAGG CACACCGAAG CTAGCAACAA GAGGAGCTAA AATCAAGGTT ACCTTATCGC	7020
CGACACCACC AGTAGAATGC TTGTCAACTT TCACACCATC AATGGCTGAC AGGTCAAAC	7080
CTTGCCCAAGT CTTAACCATA TTCATCGTTA AATCAGAGAT TTCTCGAGTC GTCATTCCCT	7140
TAAATAAAC AGCCATAGCA AAGGCAGACA TCTGATAATC AGGAACAGTT CCTGATACAT	7200
AGCCTTCTAT CAGCCATTCA ATTTCACTTG AAGTCAGTTC TTGACCGTCT CGTTTTTTTT	7260
GGATTAAATC AACTGCTCTC ATTCTTTCAC ACTTCTAAGG ATATAGTATC CCTTGTCTTT	7320
TTTAAGGATT TCACAATGC CAAACACATC TTCCATCTTA GACTTGGCAC TTGGAGCTCC	7380
TTGTTTTTTC TGGATGACGA TGGTCAAATC TCCACCAATT TCCAAGAAAT CTTTACTTTT	7440
CTCGATGATT TCATGAACGA CTTGCTTGCC CGCACGGATA GGAGGATTGG AAATGACATG	7500
GTCAAATCGC CCTTGAACCT TTGCATAAAT ATTAGATTGA AATATCGTCG CTTTTCGATT	7560
ATTTTTTTCA GCATTTCTCT GAGCTAAATC CAGGGCACGA GTGTTAATAT CAACCATGGT	7620
CGCCTGAAC CCGTAAACCT TGACCAAGGA CAAACCTAAT GGACCATAAC CACAGCCTAC	7680
ATCTAGGACT GTCTCTCCTT GGTGACATC CAGACACTTG AGCAAGAGTT GACTTCCAAA	7740
GTCAACCATT TTCTTGCTAA AAACACCCGC ATCTGTCAA AAAGTCATTT TTCTCCCAA	7800
CAAGTCCACT CTCAACTCAT GAATGTCGTG AGCAGCGTCA GGATTTTCTG CATAGTACAT	7860
TTTACTCATG AACTATTTT ACCATAATTT GACTCAAATT GTAAATCGTT TACAAATTGA	7920
TAATAAAACG AAAAAGACCG AAGAAAGCAA GTCACGAAGC CATTTTCTTC AATCTCTTTC	7980
AACACTTATA AATAATAAAC CATTTAGAAC TATAAATATC ACAGTCCAGA TAAAAACAAA	8040
AAGTTTATCA TCTATAATCA GGCAGATTAT TATTTCTATT GCTTAACCTT AAAATACTTT	8100
ATTATCAACA AAATTCCTAA CAAAATGTTT AGATAAAAGC CCAACTGATA CGTTTATGTC	8160
AGGATTTCCA AACTTGTTCA AAGTCGTATC AAATCTTCTA GTGACATGTG GAAGAAATAA	8220
CCCTCTGTGC CAATCCGTAG GACTAAAAAG CAATAACTAC CCGCAGCAAT CCATTTTCGT	8280
CATCGTTTTT TAGTAAGAAA GCAATTAAGA ACGAACAAAT AAAGACAGCT GTTACAATAG	8340
CATGTTCCAT CAAAAAGTA AAACCGTAAT AGGTTTCCAC AAAGCATCTA CCATTATCTG	8400
CATTGGTTCC TTTTATAAAA GTTAAAGCAA AACTTAAAT AAAACAGAGT TCCAATATGT	8460
AACGTTTTAA GATTTTCATA GTACACCTCC TATAAGTTGT GAACTAAAAA GCCCCTTTA	8520
TAAGCTTATA AATCAGTAGA ATCTATCTCC TATTTTCATCA ATAAATTGAT CACTTATACT	8580
ATATACCATT GACTTACCAC ATTCAAGAAA CCGCTTTATT TTTTATAGCTT TTTATGGTAT	8640
GATAGACAAA ATATCTAGGG GAAAACAAAT GACCAACGAA TTTTACATT TTGAAAAAT	8700

567

CAGCCGCCAG ACTTGGCAAT CTTTACATCG AAAGACAACA CCTCCTTTGA CAGAAGAAGA	8760
ATTGGAATCT ATCAAGAGTT TTAATGACCA AATCAGTCTC CAAGACGTTA CAGATATCTA	8820
TCTCCCCTTG GCTCATTGA TTCAGATTTA CAAGCGAACT AAGGAAGATT TAGCCTTTTC	8880
AAAAGGAATT TTCCTCCA	8898

(2) INFORMATION FOR SEQ ID NO: 70:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13188 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 70:

TATCTTAACG aGGATTGGT TTATCGTCAG TCTTATTGCC CTAATTGTGG GAACAATCCC	60
TTAAATCATT TTGAAAATAA TCGGCCTGTA GCAGATTTT ACTGTAATCA TTGTAGTGAG	120
GAGTTTGAAC TAAAGAGCAA AAAAGGAAAT TTTTCATCAA CAATCAATGA TGGTGCTTAT	180
GCAACGATGA TGAAGCGTGT GCAGGCAGAT AATAATCCTA ATTTCTTTT TTAACTTAC	240
ACAAAAAATT TTGAGGTAAA TAACTTTCTT GTCCTTCCGA AGCAATTTGT TACACCGAAA	300
TCGATTATTC AAAGAAAACC ACTTGCACCA ACTGCTAGAC GAGCAGGTG GATTGGTTGT	360
AACATTGATT TATCACAAGT ACCTTCTAAA GGAAGGATAT TTCTTGTGCA AGATGGACAA	420
GTTAGAGATC CAGAAAAAGT TACAAAAGAA TTAAAGCAAG GTTTATTTT AAGGAAGAGC	480
TCTCTGTCAT CAAGAGGTG GACAATAGAA ATTCTAAATT GTATAGATAA GATAGAGGGT	540
TCAGAATTTA CCCTTGAAGA TATGTATCGT TTTGAAAGTG ACCTAAAAA TATCTTTGTT	600
AAGAACAATC ATATCAAAGA AAAGATTAGG CAACAGCTTC AAATATTAAG AGACAAAGAA	660
ATAATAGAAT TTAAAGGTAG AGGAAAGTAT CGGAAATTAT GAAAACGAAA CAACTTGTG	720
CATCAGAAGA GGTGTATGAT TTCTTAAAAG TCATCTGGCC TGATTATGAA ACTGAAAGCC	780
GTTACGATAA CCTAAGTTTA ATCGTCTGTA CCTTATCAGA TCCCGATTGT GTGAGATGGT	840
TATCTGAAAA TATGAAATTT GGTGACGAAA AACAACAGC TTTGATGAAG GAAAAATATG	900
GGTGGGAAGT AGGAGATAAA TTGCCAGAGT GGCTACATAG CTCCTATCAT AGATTATTGT	960
TAATAGGTGA ATTATTGGAA AGCAATCTAA AACTGAAAA GTATACAGTA GAAATTACAG	1020
AAACTTTATC ACGTTTAGTA AGTATAGAGG CTGAAAATCC AGATGAAGCC GAACGACTTG	1080
TAAGAGAAAA GTATAAGAGT TGTGAAATTG TTCTTGATGC AGATGATTTT CAGGACTATG	1140

568

ACACTAGCAT ATATGAATAG GTAGATGTTT TTATTTTGTC AACAAAAAG AGGCTCGCAC	1200
CTCTTTTCT TATTTCTTT TATGATTAA TACGGCATTG AGGACAATAG CGAGTAGGCT	1260
GGCTACGACG ATTCGTTTG AGAAGAACAT TTGGAAGGCT GTCGGCATGC TGACAAAGAG	1320
ATTACTGTTG TTGAGACCGA CACCTGCAGC GATTGAAACA GCTGCGATAA GGAAGTTGTG	1380
TTCATTTGTTA GCAAAGTCAA CACGGGCGAG GATTTCATC CCTTGAATTG ATACAAAACC	1440
AAACATTACC AGCATGGCAC CACCGAGGAC GGAGCTTGA ATGATTGGG CAAGGGCGCC	1500
AAACTTAGGA AGCAGTCCAA GGAGAACCAG GAAACCAGCT GCGTAGTAGA TTGGCAGGCG	1560
TTTTTTGATG CCTGACAATT TAACCAAACC AACGTTTGT GAAAATCCGG TGTAAGGGAA	1620
GGTGTTAAAG ATTCCTCCGA GAAGTACGGC CAAACCTTCT GCGCGGTATC CGTTGCGAAG	1680
GCGCGTGCTG TCGATTGGAT CCTTTGTGAT ATCAGACAAG GCCAGATAAA CACCAAGTTGA	1740
CTCAACCATA GACACCGTTG CGATGATACA CATCATGACA ATAGATGAGA TTTCAAAGGT	1800
TGGCATCCCA AAGTAGAGTG GAGTTGGGAC ATGGACAAGT GGAGCTACCG CAACAGGAGA	1860
GAAGTCCACC AAGCCCATAG TAGCAGCAAT GGCAGTTCCA ACAACCAGAC CAATCAAAAT	1920
AGAGATAGAC TTGATAAATC CTTTGGTAAA GATGTTGATC AAGAGGATAA TCAGAACACT	1980
AATAGCTGCA AGCAAGAGAC TTTGACCAGT TGGCTCTGGA ACGTTATTTC CCATATTTCC	2040
AATAGCGACA GGGATCAAGG TTAACCAAT CGTGGTAATA ACAGATCCTG TTACGATAGA	2100
TGGGAAGAGA TTGGCTACTT TTGAGAAGAT GCCTGAAACA AGAACCAGT AAATCCAGA	2160
TGCGATAAGG GCACCAAACA TAGCGCCACT ACCATGGCTT TGCCCAATCA TAATCAAGGG	2220
AGCGACCGAC TGGAATGCAA CTCCAAGAAC GACTGGGAGT CCAATCCCAA AGTATTTGTT	2280
GAGTTGGAGT TGGAGGAAGG TTGCCACCCC ACACATGAAG ATATCTGTAG AAATCAGGTA	2340
GGTCAACTGC TCAGCTGAAT AGCCAAGGGC TGTGCAATC ATGATGGGAA CCAGGATAGA	2400
TCCTGAGTAC ATGGCTAGTA AGTGCTGCAA GCCAAGAACG GCTGCTTGC AGTGTTTTTC	2460
TTGAGTTTGC ATTAGAGATC TGCCTCCTTA AATACGACTT GACCATTTTC AAAACAATCC	2520
AAACGAGCAA GTGATAGGAC AGGGTAGCCT GCTTTTTC AAATACACG ACCATCTTGG	2580
AAGGATTTCT CAATCACGAT ACCGATAGCT TGGACTGTGG CACCGGCCTG TTCGATGATT	2640
TGAATCAAGC CTTTAGCAGC TTGGCCATTA GCAAGGAAAT CGTCGATAAT CAAAACCTTG	2700
TCCTCTGGTG AGAGGAATTT TTCAGCGATA GAAACGGTGC TGGTCACCTG CTTGGTAAAG	2760
GAGTAGACTT GAGCAGTTAA GATGCCTTCG TTCATGGTGA TGTCTTAGC TTTTGTGGCG	2820
AAAATCATGG GAACGTTTAA GGCTTCAGCT GTAAAAACG CTGGGGCAAT ACCCGACGCT	2880
TCAATGGTTA CGACCTTGGT AATGCCAGTA GTAGCAAAT TTTCCGCAA AACCTTACCA	2940

569

ATCTCTCGCA TCAAGCTAAA GTCAACTTGG TGGGTTAAAA AGGAATCTAC CTTGAGGATG	3000
TTATCACCCA AGATATGCCC ATCCTTGAGG ATGCGCTCTT CTAATAATTT CATAAGACCT	3060
CCTAAAGTCT AAAAGTTAAT TTACTTGTG TTTAAATATT TCTATAGTGA TCCCTTTTGC	3120
TAATACTATA TATTTGATAA AACTATTACG AGCGAAGCGA GTCTTATCAA ATATTTCCCG	3180
TTGTAGTGGT ATCATAGACA ATAATCTTGT TATTGTCTAT GACGGGATTT TTGAGAGTAA	3240
AATAGTTCGG GGAACATTT TAGCCTAAGC CTAGAAATGA AAGAGCTAGG GGCTCAAAAA	3300
TTAGGGATGA AATCCCTGG ATTCCTGAAA TTATTCACAG GATAATTTCA CCTCCCGTCC	3360
GCACATAATTA AGGGAATAT TAAAAAAGA CCTACTTAAT CTCTAAGTAA GTCCCTTAAA	3420
TAGACATGGC AAAAACGGCC ATATCTCACT GCTGACTTAC TTATTGTAG GTGTCCGGC	3480
ACCTGTGATA AACGTCGTGC CAATTCACGA CATAACAAG TAAACGATA TTCAATTTTA	3540
AATAGGCTTG AGCCAATGTT TTTATTTTAC ACTAAATAAC TTTAGAAATC AACTATTTTG	3600
TTAGTGTTTT GGTTTAAAAA ACGAACAAAA AGAAGAGAGG GTGAACAAAA ACTCCATTGT	3660
AAGCTAACAG TTATACTAAA TGAAAATCAA AGAGCAAAT AGGAAGCTAT CCACAACCTC	3720
AAAACACTGT TTTGAGGTG TGGATAGAAT TGACAGAGCC AGTATCATAT ACCTACGGTA	3780
AGGCGACGTT GACGTGGCTT GAAGAGATT TCGAAGAGTA TTAGAAGATT TTTCCATCAT	3840
AAAAGCATA CTATCAAGCT TTTAGACACC TGACAATATG CCTTTTCTA ACTTTAAAGA	3900
CTTTTCCCAA TTTTATTAT TCTACTCGCT AAATCTTAAA AAATAGCCAT CTGGATCCAA	3960
AACTGCAAAT TTATGAGGAT AGATATAGGG ATCACTGACA CGAACTTTC TTTTGGTCAA	4020
GGGACGATAA ATAGGATAGT TTGCCTTCAT CACTCTTAA TAGAGTTTG AAACATCCTT	4080
TATGCCAAAG GAGAGATTGA CTCCACGACC AAAGGATAG GTCAGTTCAG CTAGTTGATC	4140
CTTTGTTCCC TCCTCTAACA TTAGTTGACA CTCTCAAGA GAAAGAGAAA GTTTTCTTCT	4200
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AGTCAATTTT CAAGACAATC GGTGTATGGT CTTGGCGAGC ACCTGAGTCA ATCATATCAG	4380
ATTTAGTGAC CTTGTCAGCG ATACGGTTAC TTGTGAGCCA GTAGTCGATT CTCCAGCCTG	4440
TATTGTTGAT TTTAGAAGTT TTGCTGCGTT GTGCCCACCA AGTGTAGCGT TCAGGAACAT	4500
CGCCATGAAC ATGGCGGAAG GTGTCTGTAA ATCCAGTTGC CAAAAGGTTG GTAAATCCAG	4560
CACGTTCTCT GTCAGTAAAT CCAGGTGAAC GCGGTTGCT AGCAGGATTT GCAAGGTCGA	4620
TTTCATTGTG GGCTACGTTG TAGTCACCGG TCGCAAGGAC TGGTTTTCT TTGTCTAGTT	4680

570

CAGCCAAATA CTCAGCATAT TTGGCATCCC AGACTTGGCG TTCTTCCAAG CGTTTGAGAC	4740
CGTCACCAGC GTTTGGAGTG TAAACTTGGG TTACGAAAAA TGCATCAAAT TCTAGAGTGA	4800
TGATACGACC TTCCAAGTCC ATGGTAGAAG GGGCACCAGT TTCTGGGAAG CTGATAGTAG	4860
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GGGAAGAGCG CCACGTGTTT TCGTAGCCTG GGAAGAGTTC TTCTAAAATT TCCACGTGTT	4980
TCTTTGTAGG TCCTTTGGCA GAAAGCTTGG TTTCTTGAT AGCAATGATA TCAGCATTTT	5040
CAGCGACCAA GGTTTGTAGG ACTTCTTGGG ACAATTTGGC ACGAGCTGAG TCACTAGTTA	5100
GGGCGCGTT TAGGGAATCA ATATTCATG AGATAAGTTT CATAAAGTTA CCTTTTTCAT	5160
TCAGATTATA GATTTTATTA TACCAAAAAA AGATCTATTT CCCCACGTA TGGTTTGAAA	5220
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AATTCTACTC TTATGACTAT GTACTCAGCC AAATCGGTCA GCAAAATGGT ATCATGGTTG	5340
GCTTTGGGAT TGTCTATTA GCTGTGACAG TTTTTTTTGC TTTCAAGGCA TACCATAATA	5400
AAAAGGGAAG CGAATTTCTG GAGTTGGTCA TGATTTGAGA TCTGGCCTTA TTTAGCTCTG	5460
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GTTAATACTT CCACAAACAC AGATGGCGCA CTTATCAAGG TGGGAGATCG CTATTATCGT	5640
GCCCTAAATG GAAGTGAGCC AGACAAGTAC CTGTTAGAGA AAGTCGAATT GTATAAGACA	5700
GACGCAATTG AACTGGTGGG TGTGAACAAA TGACACTTAA TTATATCGAA ATTTTAATCA	5760
AACTGGTCTT GACTCTCAA TAGCTCAACA ACAATGTTC CTTTGTGAAA CGTTTGATTG	5820
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TTGGTTTGTG TGCATCGGAT GTATCCCTCA AACTTCGTAG CCAAGGGATT TTCCAGATGA	5940
AGCAAGTCAA ACGAGCTGTG CAAGAGCAAA ATGGGCAACT CATCGTTCTG CAAATGGGAG	6000
ATGAAAATCC TAAGTATCCA GTTGTGACTG ACGGTGTGAT TCAAGTAGAT GTCTTGAAT	6060
CGATTGGTCG TAGCGAAGAG TGGTTGCTTG ATAACCTCAG TAAACAAGGG CATGACAATG	6120
TAGCCAATAT CTTTATTGCT GAATATGACA AGGTGCTGT TACAGTCGTA ACTTATGAAT	6180
AAGAAAAACC TGGGGTCTTG TACTCTTCGA AAATCTCTTC AAACCGCGTC AACGTCGCCT	6240
TGCCGTATGT AGGTACTGA CTTTCGTAGT TCTATCTACA ACCTCAAAGC AGTGCTTTGA	6300
GCAGCCTGCG GCTAGTTTCC TAGTTTGCTC TTTGATTTTC ATTGAGTATT GGCCTCAGGT	6360
TTCCATTTCG AATCAGAAAG GGATTTTATG TCCATTATTC AAAAATTTG GTGGTTTTC	6420
AAGTTAGAAA AACGCCGTTA TCTAGTCGGA ATTGTGGCCC TGATCTTGGT TTCCGTCCTC	6480

571

AATCTCATTC CTCCTATGGT TATGGGGCGG GTCATTGATG CCATCACATC GGGGCAATTA	6540
ACCCAGCAGG ACCTCCTTCT TAGCCTATTT TACTTGCTAC TTGCAGCCTT TGGTATGTAC	6600
TATTTGCGCT ATGTGTGGCG TATGTATATC CTTGGGACCT CTTATTGCTT GGGACAGATC	6660
ATGCGGTCTC GCTTGTTTAA GCATTTTACA AAAATGTCGT CAGCCTTTTA TCAAACCTAT	6720
CGGACGGGTG ATCTGATGGC ACACGCAACC AATGATATCA ATGCCTTGAC TCGTTTAGCA	6780
GGTGGCGGTG TCATGTCTGC GGTGGATGCC TCTATCACGG CTCTGGTGAC TTTGTTGACC	6840
ATGCTCTTTA GCATCTCATG GCAGATGACT CTTGTTGCCA TTCTCCCCCT ACCTTTCATG	6900
GCCTATACGA CTAGTCGCCT AGGGAGAAAG ACTCATAAGG CCTTTGGCGA ATCCCAAGCT	6960
GCTTTTCTCG AACTCAATAA CAAGGTACAG GAGTCCGTAT CAGGTATCAA AGTGACCAAG	7020
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CAAAAGAACC TGCAAACCAT GAAATATGAT AGTCTCTTTG ACCCTATGGT TCTCTTGTTT	7140
GTTGGTTCGT CCTATGTTT AACGCTTTTG GTTGGCTCCT TGATGGTTCA GGAAGGGCAG	7200
ATTACAGTTG GGAATCTAGT CACCTTTATC AGCTATTGG ATATGCTGGT CTGGCCTCTT	7260
CTGGCCATCG GTTTCCTCTT TAATACTACT CAGCGAGGGA AGGTTTCTTA CCAGCGGATT	7320
GAAAATCTTT TGCTCAGGA ATCTCCTGTA CAAGACCCTG AGTTTCCTCT GGATGGTATT	7380
GAAAATGGGC GTTTGGAGTA TGCCATTGAC AGCTTTGCTT TTGAAAATGA GGAACACTG	7440
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TCTGGGAAAA CGTCCTTAAT CAAGCTCCTC TTGCGTGAAT ACGATGTGGA TAAGGGTGCC	7560
ATTTATCTAA ACGGTCACGA TATTCGGGAC TATCGTCTGA CAGACCTTCG CAGTCTCATG	7620
GGCTATGTTT CTCAGGACCA GTTTCTTTT GCGACTTCAA TCCTAGACAA TATCCGCTTT	7680
GGCAATCCTA ACTTGCCCCT TTCAGCGGTC GAGGAAGCTA CTAAGCTAGC CCGGGTTTAC	7740
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ACGCACGAAG ACTTGCTAGC TTTGGATGGC TGGTATGCCC AAACCTACCA GTCTCAGCAG	8100
TTGGAATGA AAGGAGAAGA AGATGCAGAA TAAACAAGAA CAATGGACTG TATTGAAGCG	8160
CTTGATGTCT TATCTCAAGC CTTATGGACT CTGACCTTT TTGGCACTCA GTTTTCTCCT	8220

572

AGCGACGACG	GTCATTAAAA	GTGTCATACC	CCTCGTGGCT	TCCCACTTTA	TCGACCAGTA	8280
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CCTACAAACT	GTAGTTCAGT	ATGTCGGCAA	TCTTCTCTTT	GCGCGCGTGT	CTTACAGTAT	8400
TGTTAGGGAT	ATTCGTCGGG	ATGCCTTTGC	CAATATGGAG	AAACTGGGCA	TGTCTTACTT	8460
TGACAAGACG	CCAGCAGGTT	CTATCGTTTC	TCGTTTGACC	AACGATACCG	AGACGATTAG	8520
TGATATGTTT	TCTGGGATTT	TATCCAGCTT	TATCTCAGCA	GTTTTTATCT	TTCTGACAAC	8580
CCTTTATACC	ATGPTGGTGC	TGGATTTTCG	TTTGACGGCT	TTAGTCTTGC	TCTTCTTCC	8640
TTTGATTTTC	CTTTTGGTCA	ATCTCTATCG	AAAAAAGTCA	GTGAAAATCA	TCGAGAAAAAC	8700
CAGAAGTCTC	TTGTCAGATA	TCAATAGTAA	GCTGGCAGAG	AATATCGAGG	GAATCAGGAT	8760
TATTCAGGCC	TTTAATCAAG	AGAAGCGCCT	GCAGGCAGAA	TTTGATGAAA	TCAACCAAGA	8820
ACACTTGGTC	TACGCCAACC	GTTCTGTAGC	CTTGGATGCC	CTCTTTTGA	GACCTGCCAT	8880
GAGTTTGCTG	AAACTTCTAG	GCTATGCAGT	CTTGATGGCC	TACTTTGGCT	ACCGTGGTTT	8940
TTCTATCGGG	ATAACGGTCG	GGACCATGTA	TGCCTTTATC	CAGTACATCA	ACCGCCTTTT	9000
TGACCCCTTG	ATTGAGGTGA	CGCAAACTT	TTCAACTCTG	CAAACGGCTA	TGGTTTCTGC	9060
AGGTCGTGTC	TTTGCCCTGA	TAGACGAGAG	GACCTATGAA	CCTCTTCAAG	AAAATGGGCA	9120
AGCCAAAGTC	CAAGAAGGCA	ATATCCGTTT	TGAACATGTG	TGTTTCTCAT	ATGACGGTAA	9180
ACATCCGATT	CTGGATGACA	TTTCTTTCTC	TGTTAATAAG	GGTGAAACCA	TTGCCTTTGT	9240
AGGTCATACA	GGTTCAGGGA	AATCGTCTAT	TATCAATGTC	CTCATGCGCT	TTTATGAATT	9300
CCAGTCAGGG	AGAGTTCTCT	TGGATGATGT	GGATATCAGG	GATTTTCAGTC	AAGAAGAGCT	9360
GAGAAAAAAC	ATCGGTTTGG	TCTTGCAGGA	ACCCTTCCTC	TATCATGGAA	CTATTAAGTC	9420
CAATATCGCC	ATGTACCAAG	AAACCACTGA	TGAGCAGGTT	CAGGCTGCGG	CAGCCTTTGT	9480
GGATGCAGAT	TCCTTTATTC	AAGAACTTCC	TCAGGGGTAC	GACTCCCTCG	TTTCCGAGCG	9540
TGGTTTCGAGC	TTCTCTACTG	GGCAACGCCA	GCTTCTTGCC	TTTGCTAGAA	CAGTCGCCAG	9600
CCAGCCTAAA	ATCCTGATTT	TGGATGAAGC	GACAGCCAAT	ATTGACTCTG	AAACAGAAAG	9660
CTTGGTTCAA	GCTTCTCTGG	CGAAGATGAG	ACAGGGCCGA	ACAACTATTG	CTATCGCTCA	9720
CCGCCTTTCT	ACTATTCAAG	ATGCCAACTG	CATCTATGTC	TTGGATAAGG	GACGCATTAT	9780
CGAGAGTGGA	ACCCATGAGG	AACTCTTGGC	TCTGGGAGGA	ACCTATCACA	AGATGTATAG	9840
TTTGCAGGCA	GGGGCCATGG	CCGATACTCT	TTGAAAATCT	CTTTAAACCA	TGTCAGCTTT	9900
ATCTGCAATC	TCAAAGCTGT	ACTTTGATTT	TCATTGAGTA	CTAGAAGGAA	ATCCTTCAAA	9960
TTACAGATTT	CTTTCACCGC	CTTTTCCATT	TTGTGGTATA	ATGAAAAATG	TTGACAAATA	10020

573

GTATAATAAA AACAAAGGAG AACAGCATGC TGAAATGGGA AGACTTGCCT GTGGAAATGA	10080
AATCAAGCGA GGTGAGTCT TACTACCAGC TTGTCTCTAA AAGGAAGGGT TCGCTGATT	10140
TCAAGCGTTG CTTGGACTGG GTTTTGGCCT TGSTCTTACT GGTCTTGACC TCTCCCATCT	10200
TTCTCATCTT GAGCATTTGG ATCAAGTTGG ATAGCAAAGG GCCAGTGATT TACAAGCAAG	10260
AGCGTGTGAC CCAGTACAAC CGTCGGTTCA AGATTTGGAA GTTTCGTACC ATGGTGACGG	10320
ATGCGGATAA AAAAGGAAGT CTGGTGACTT CTGCTAACGA TAGCCGCATT ACCAAGGTTG	10380
GAAATTTTCAT CCGACGTGTC CGTTTGGACG AACTGCCTCA GTTGGTCAAT GTCCTTAAAG	10440
GTGAGATGTC CTTTGTGGT ACACGACCTG AAGTGCCACG TTATACAGAG CAGTATAGCC	10500
CTGAAATGAT GGCAACCTTG CTCTTGCAAG CAGGGATTAC CTCTCCAGCC AGCATCAACT	10560
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CCTATGTGGA GCATGTTCTT CCTGAAAAGA TCGCTATAA CCTCGCCTAT CTCCGAGAGT	10680
TTAGTTTCTT TGGGGACATC AAAATCATGT TTCAAACCGT GTTTGAGGTA CTAAAAATAA	10740
GTAGCATATA GAAATGAGT ACAGATAAAA GGAGCAAATC AATGCCAAT TACAATATTC	10800
CATTTTCACC GCCTGATATC ACAGAAGCAG AAATTACTGA AGTAGTGGAT ACCCTGCGTT	10860
CTGTTTGGAT CACAACAGGT CCTAAAACAA AAGAACTGGA GCGCCGCTTG TCTCTTTACA	10920
CACAGACACC TAAGACTGTT TGTCTCAACT CTGCGACAGC CGCTCTGGAG TTGATTTTAC	10980
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CATGTAGTGT CATTACGCAC GTGGGAGCAA CCCCTGTCAT GGTGGATATC CAAGCAGATA	11100
CGTTTGAGAT GGACTATGAC CTGCTTGAGC AAGCTATCAC TGAGAAAACT AAGGTGATTA	11160
TTCCAGTAGA GCTCGCAGG ATTGTTTGGC ATTATGACCG TTGTTTCAA GTCGTGGAGA	11220
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TTGTCTCTGA TAGTGCCAC GCTTTGGGAT CTATTTATAA AGGACAACCT TCTGGTTCTA	11340
TCGCTGACTT TACTTCCTTC TCATTCCATG CAGTTAAGAA CTTTACAACG GCAGAAGGTG	11400
GAAGTGCAC TTGGAAAGCC AATCCAGTGA TTGATGACGA AGAGATGTAC AAGGAATTCC	11460
AAATCCTTTC CCTTCACGGG CAAACTAAGG ATGCTCTTGC CAAGATGCAA CTGGGGTCAT	11520
GGGAATACGA TATCGTTACA CCAGCCTATA AGTGCAACAT GACCGATATC ATGGCTTCAC	11580
TTGGTTTGGT ACAATTGGAC CGCTATCCAA GTTTGTTGCA ACGCCGTAAG GACATTTGTG	11640
ACCGCTATGA TAGTGGTTTT GCAGGTTCTC GCATCCATCC TTTGGCACAC AAGACTGAAA	11700
CTGTGGAATC TTCACGCCAC CTCTACATCA CCCGTGTAGA AGGAGCAAGC CTAGAAGAAC	11760

574

GCAACCTCAT CATCCAAGAA TTGGCTAAAG CAGGAATTGC AAGTAATGTT CACTACAAAC 11820
 CGCTTCCTCT CTTGACAGCC TATAAGAATC TTGGATTGTA TATGACGAAC TATCCTAAGG 11880
 CCTATGCCIT TTTTGAGAAT GAAATTACCC TCCCTCTTCA TACTAAATTA AGCGATGAAG 11940
 AAGTAGACTA TATCATTGAG ACTTTCAAAA CAGTTTCTGA AAAAGTGCTA ACTTTATCAA 12000
 AAAAATGACA AACTACAGTC AAGCGAAAGT GATCCTGCCC CTAAAAAGTC TAATTGAGTG 12060
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 CAGAGAGAGA ATTTTATAG GATTTTCCTT TCTTGTGGGA GTCCCGTGGT TTGAAATAAG 12180
 ATGTGAGCAA TTTAGTGTAG CATTTAGAAT CCTTACTAGA CATCATTTAG AAAATCTAGT 12240
 GTCTGTCTT AGTTTCAAT TCACCCTATT TTTGAAAGA CGTGAGTTTC CATGAGTGAG 12300
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 AAGGCTAAG AGCAAACTAG GAAGTTGGCC ATAGATAGCT CAAAACCTG CTTTGAGGTT 12840
 GTAGATATAG TAAAATGAAA TGAGAATAGG ACAAATTGAT CGGGACAGTC AAATCGATT 12900
 CTAACAATGT TTTAGAAGTA GAGGTGTAAT ATTTTAGTTT CAGTCTACTA TAGAACTGAC 12960
 CAAGTCAGTA ACCTAGACTT AGGGCAAGGC GGCAGTACC TAGTTTGAAG AGATTCCGA 13020
 AGAGTATAAA TTTTAATATT TTCTTGTGTT ATTCCTTGAC AATTCAATTT GGAAAATATA 13080
 TGATAAAGAT AATGACAGCG GTGTCAATCT ATCTATTTTA AGAAAAGTAA TAATCAATTG 13140
 TTAAAAATAG TAAAAAATT GGAGGTTCTG ATGAAATATT TTGTTCCG 13188

(2) INFORMATION FOR SEQ ID NO: 71:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 32768 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 71:

575

AACGAGTGCA TCAGTCTCAG CAAGCACCAG TGGCTCGGCC TCAGCAAGCA CCAGCGCGTC	60
TGAATCCGCA TCAACCAGTG CCTCAGCTTC AGCAAGTACC TCAGCATCTG AATCAGCATC	120
AACAAGTGCA TCGGCTTCAG CAAGCACAAG TGCTTCAGCC TCAGCAAGTA TCTCAGCGTC	180
TGAATCGGCA TCAACGAGTG CGTCCGCTTC AGCAAGTACT AGCGCCTCAG CATCAGCGTC	240
AACAAGTGCT TCGGCTTCAG CGTCAACGAG TGGCTCTGAG TCAGCATCAA CGAGTACGTC	300
AGCCTCAGCA AGCACATCAG CTTCTGAATC TGCATCAACC AGTGCCTCAG CCTCAGCATC	360
GACAAGCGCC TCAGCTTCAG CAAGTACCAG TGGCTCAGCC TCAGCAAGTA CCAGTGCTTC	420
AGCCTCAGCG TCGACAAGTG CGTCCGCTTC AACCAGTGCA TCTGAATCGG CATCAACCAG	480
TGGCTCAGCC TCAGCAAGTA CTAGCGCTTC AGCCTCAGCA TCAACGAGTG CGTCCGCTTC	540
AGCAAGTACT AGTGCATCAG CATCAGCATC AACGAGTGCA TCGGCTTCAG CAAGTACCAG	600
CGCCTCAGCT TCAGCAAGCA CCAGTGCGTC AGCCTCAGCA AGTACCAGCG CCTCAGCCTC	660
AGCAAGCACC AGTGCCTCAG CTTCAGCAAG TACCAGTGCG TCAGCCTCAG CGTCGACAAG	720
TGGCTCGGCT TCAGCAAGTA CCTCAGCGTC TGAATCAGCA TCAACGAGTG CATCAGCTTC	780
AGCATCAACA AGTGCTTCAG CTTCAGCAAG TATCTCAGCG TCTGAATCGG CATCAACGAG	840
TGGCTCCGCT TCAGCAAGTA CTAGCGCTTC AGCATCAGCG TCAACAAGTG CTTCCGCTTC	900
AGCGTCAACG AGTGCGTCTG AGTCAGCATC AACGAGTACG TCAGCCTCAG CAAGCACATC	960
AGCTTCTGAA TCTGCATCAA CCAGTGCGTC AGCCTCAGCA TCGACAAGCG CCTCAGCTTC	1020
AGCAAGTACC AGTGCGTCAG CCTCAGCAAG TACCAGTGCT TCAGCCTCAG CGTCGACAAG	1080
TGGCTCGGCC TCAACCAGTG CATCTGAATC GGCATCAACC AGTGCGTCAG CCTCAGCAAG	1140
TACTAGCGCC TCAGCCTCAG CATCAACGAG TGGCTCCGCT TCAGCAAGTA CTAGTGCATC	1200
AGCATCAGCA TCAACGAGTG CATCGGCTTC AGCAAGTACC AGCGCCTCAG CTTCAGCAAG	1260
CACCAGTGCG TCAGCTCAG CAAGTACCAG CGCCTCAGCC TCAGCAAGCA CCAGTGCTTC	1320
AGCTTCAGCA AGTACCAGTG CGTCAGCCTC AGCGTCGACA AGTGCGTCGG CTTCAGCAAG	1380
TACCTCAGCG TCTGAATCAG CATCAACGAG TGCATCAGCT TCAGCATCAA CAAGTGCTTC	1440
AGCTTCAGCA AGTACCAGTG CGTCGGCTTC AGCATCAACG AGTGCTTCAG TCTCAGCGTC	1500
AACCAGTGCC TCTGAATCAG CATCAACAAG TGGCTCGGCT TCAGCAAGCA CCAGTGCGTC	1560
GGCTTCAGCA AGTACTAGTG CATCGGCTTC AGCATCGACA AGTGCGTCTG AATCGGCATC	1620
AACGAGTGCT TCGGCTTCAG CATCAACGAG TGGCTCAGCC TCAGCAAGCA CATCAGCTTC	1680
TGAATCTGCA TCAACCAGTG CGTCCGCTTC AGCGTCAACC AGTGCGTCGG CTTCAGCGTC	1740

576

GACAAGTGCT	TCGGCTTCAG	CATCAACGAG	TGCGTCGGCC	TCAGCAAGCG	CAAGTACCTC	1800
AGCGTCAGct	TCCGCCCTCAA	CCAGTGCCTC	GGCTTCAGCA	AGCACAAGTG	CGTCAGCCTC	1860
AGCAAGTATC	TCAGCGTCTG	AATCGGCATC	AACGAGTGCG	TCTGAGTCAG	CATCAACGAG	1920
TACGTGAGCC	TCAGCAAGCA	CATCAGCTTC	TGAATCTGCA	TCAACCAGTG	CGTCAGCCTC	1980
AGCATCGACA	AGCGCCTCAG	CTTCAGCAAG	TACCAGTGCT	TCAGCCTCAG	CGTCGACAAG	2040
TGCGTCGGCC	TCAACCAGTG	CATCTGAATC	GGCATCAACC	AGTGCGTCAG	CCTCAGCAAG	2100
TACTAGTGCA	TCAGCTTCAG	CATCAACGAG	TGCATCGGCT	TCAGCATCAA	CCAGTGCCTC	2160
GGCTTCAGCG	TCAACCAGTG	CGTCAGCTTC	AGCAAGTACC	AGTGCTTCAG	TCTCAGCATC	2220
AACAAGTGCT	TCAGCCTCAG	CATCGACAAG	TGCCTCGGCT	TCAGCAAGCA	CATCAGCATC	2280
TGAATCAGCG	TCAACCAGTG	CTTCGGCTTC	AGCAAGTACC	AGTGCTTCAG	CTTCAGCATC	2340
AACCAGCGCC	TCGGCCTCAG	CAAGCACCTC	AGCTTCTGAA	TCGGCCTCAA	CCAGCGCCTC	2400
GGCCTCAGCA	AGCACCTCAG	CTTCTGAATC	GGCCTCAACC	AGCGCCTCAG	CCTCAGCATC	2460
AACGAGTGCT	TCGGCTTCAG	CAAGCACAAG	CGCCTCGGGT	TCAGCATCAA	CGAGTACGTC	2520
AGCTTCAGCG	TCAACCAGTG	CTTCAGCCTC	AGCATCAACA	AGTGCGTCAG	CCTCAGCAAG	2580
TATCTCAGCG	TCTGAATCGG	CATCAACGAG	TGCGTCTGAG	TCAGCATCAA	CGAGTACGTC	2640
AGCCTCAGCA	AGCACCTCAG	CTTCTGAATC	GGCCTCAACC	AGTGCGTCAG	CCTCAGCATC	2700
GACAAGCGCC	TCAGCTTCAG	CAAGTACCAG	TGCTTCAGCC	TCAGCGTCGA	CAAGTGCCTC	2760
GGCCTCAACC	AGTGATCTG	AATCGGCATC	AACCAGTGCG	TCAGCCTCAG	CAAGTACTAG	2820
TGCATCGGCT	TCAGCATCAA	CCAGTGCCTC	GGCTTCAGCG	TCAACCAGTG	CGTCAGCTTC	2880
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TGCCTCGGCT	TCAGCAAGCA	CATCAGCATC	TGAATCAGCG	TCGACAAGCG	CCTCAGCTTC	3000
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TGCATCAGCT	TCAGCATCAA	CGAGTGCATC	GGCTTCGGCG	TCAACCAGTG	CATCAGAGTC	3120
AGCAAGTACC	AGTGCGTCag	CTTCCGCATC	AACAAGTGCC	TCGGCTTCAG	CAAGCACCAG	3180
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AGCAAGTATC	TCAGCGTCTG	AATCGGCATC	AACGAGTGCG	TCCGCTTCAG	CAAGTACTAG	3300
CGCCTCAGCC	TCAGCGTCAA	CAAGTGCATC	GGCTTCAGCG	TCAACGAGTG	CGTCTGAATC	3360
GGCATCAACG	AGTGCGTCCG	CTTCAGCAAG	TACTAGCGCC	TCAGCCTCAG	CGTCAACAAG	3420
TGCATCGGCT	TCAGCATCAA	CGAGTGCCTC	CGCTTCAGCA	AGTACTAGCG	CCTCAGCCTC	3480
AGCGTCAACA	AGTGATCGG	CTTCAGCGTC	AACGAGTGCG	TCTGAGTCAG	CATCAACGAG	3540

577

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TGCGTCGGCT TCAGCAAGTA CCAAGTGGTC AGCCTCAGCA AGTACCAGTG CGTCAGCCTC	3720
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AGCCTCAGCA AGTACTAGTG CATCAGCTTC AGCATCAACG AGTGCATCGG CTTAGCATC	3840
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CACCAGCGCG TCTGAATCCG CATCAACCAG TGCCTCAGCT TCAGCAAGTA CCTCAGCATC	4140
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TGCGTCAGCT TCAGCATCAA CCAGTGCTTC GGCTTCGGCA TCAACAAGTG CCTCAGCATC	5220
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578

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579

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580

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581

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582

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583

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GGATAATTCT	GGGGAAATTT	GTGATGCTTT	TATGATGCAA	GATAATCGTG	TGCGAGTATT	16800
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586

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591

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592

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GACAAAATCA AGAATTTTCT GTCTATTTT TGAATATTTA TGGAGAATGA GACTGATGAA	30720
AATATGGTAT AATGAAATAA AGGAGTTTA TATGCAAAAA TTTATTTCAGG CTTATATTGA	30780
AAAGCTAGAT GTGACAACCA TTATCGAGAA TATTCTAACC AAGGTCATTT CTCCTTTACT	30840
GCTTTTAATT GTATTTTATA TTGCTAAAA AATGCTTCAT ACCATGGTGC AGAGAATTGT	30900
CAAACTTCT CTAATAATGT CTCGTATGA TGTGGACGC CAAAAACCA TCTCACGTTT	30960
ACTAGAAAAT GTGTTAATT ATACGCTATA TTTCTTTTA CTCTACTGCA TTTTGTCGAT	31020
TTTAGTTTG CAGTTTCTA GTTGCTGGC TGGAGCTGGT ATTGCTGGG TAGCGATTGG	31080
TATGGGAGCC CAAGGCTTC TGTCTGATGT CATCAATGGC TTTTTCATCC TCTTTGAACG	31140
TCAACTGGAT GTGGGAGATG AGGTCGTTCT GACAAATGGA CCGATTACTG TATCGGGTAA	31200
GGTTGTCAGT GTGGGAATTC GTACGACACA GCTTCGTAGC GAGGAGCAAG CCCTTCACTT	31260
TGTCCCTAAC CGAAATATCA CAGTTGTTAG CAATTTCTCA CGCACAGACT AGACCTGTTA	31320
TTTTAAGTAA TTTGTGGTAC AATAGAGGGA GTTTAATAAG GAGAAAAGAT GGTTTTAGAA	31380
AAGCAGTTGG GCAATGGTTG TACCTGGATA GACCTAGACC TAGGAAAGTT GAATAAATA	31440
GAAGACCTTT CTGAAATTTA CGGTTTGGAC AAGGAAACCA TTGAATACGC ACTGGATAGA	31500
AACGAGCGCG CCCACATGGA CTACCACCGT GAAAGTGAGA CGGTTACCTT TATCTATAAT	31560
GTCTTAGACG TAAAAAGGA CAAGGCCTAC TATGAGACTT TTCCCATGAC CTTTATTGTC	31620
GAGCATCGTC GCCTGATTAC CATTAGTAAT ACCAAGAACG CCTATGTCAT TGAACAGATG	31680
ACTCGTTATC TGGAGAACCA TGACACGCTT TCGATTTATA AGTTTCTCTT TGCCAGTCTG	31740
GAAATCATCA GCAATGCCTA CTATCCTGTC ATTGAGCAGA TGGACAAGAG TAGGGATGAG	31800
GTCAATGACC TCTTGCCTCA GCGAACTACC AAGAAAAACC TCTTTGCTCT GTCTGATTTG	31860

593

GAGACTGGTA TGGTTTATCT GACGGCAGCT GCCAAACAAA ATCGGATTTT GTTAGAGCAT	31920
ATTCAAGGTC ATGCCTTGTA TCGTAGTTTT GATGAGATTG AGAGAGAACA GTTTGATGAT	31980
GCCATGATTG AGGCTCATCA GCTGGTATCC ATGACAGACC TAATCTCTCA GATTTTACAG	32040
CAGCTTTCAG CCTCTTACAA CAATATTCTA AACATAATC TGAATGACAA TTTGACAACC	32100
TTGACTATCA TTTCACTCTT GCTAGCTGTT TTGGCAGTCG TGACAGGCTT TTTCGGAATG	32160
AATGTTCCCT TACCTTTAAC AGATGAGCCC CATGCTTGGC TCTATATCAG TTTGGCTAGT	32220
GCAGGTTTGT GGATTGTTTT ATCCTTGTTA CTAAGGAAAA TTGCGAAAAA AAGTTAAGAA	32280
AAGGAGCCAG AATGGCGATT GAAAATTATA TACCAGATTT TGCTGTGGAA GCAGTCTATG	32340
ATCTGACAGT CCCAAGCCTG CAGGCGCAGG GAATAAAGGC TGTTTTGGTC GATTGGGATA	32400
ATACCCTCAT TGCTTGAAC AACCTTGATG GAACGCCAGA GATGAAGCAA TGGCTACATG	32460
ACCTTCGGGA CGCGGGTATT GGCATTATCG TAGTGTCAAA TAACACCAAA AAACGCGTTC	32520
AACGAGCAGT TGAGAAATTT GGGATTGATT ACGTTTACTG GGCCTTGAAG CCCTTCACAT	32580
TTGGTATTGA CCGTGCTATG AAGGAATTCC ACTATGACAA AAAGGAAGTG GTCATGGTTG	32640
GTGACCAACT CATGACAGAT ATACGAGCAG CCCACCGTGC AGGGATTCCG TCAATTTTAG	32700
TCAAACCCTT GGTCCAACAT GACTCAATCA AAACGCAGAT TAACCGAACT CGTGAGCGTC	32760
GTGTTATG	32768

(2) INFORMATION FOR SEQ ID NO: 72:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14872 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 72:

CCAGTCACAA AGAAATTGAG CGCGTTCAGc TGAGGATGCA CTATGATGCA AGCTACATTT	60
CATTTGATGG GATATTAAGA AAGGAGATTT TCATGACACT TTTAGATGTA AAACACGTTC	120
AAAAAATTTA TAAACACGT TTTCAGGGCA ACCAAGTAGA AGCCCTCAAG GATATTTCACT	180
TTACCGTAGA AAAGGGTGAC TACGTTGCCA TCATGGGTGA GTCTGGTTCT GGTAAATCAA	240
CTCTTCTCAA TATTCTAGCT ATGTTGGATA AACCAAGTCG TGGTCAGGTT TACTTGAATG	300
GAAGTGACAC CGCAACTATT AAAAATTCAC AGGCTTCTAG TTTCGGCGT GAAAAGCTAG	360
GATTTGTCTT CCAAGACTTT AACTTGCTAG ATACTCTGTC TGTTAAGGAC AATATCTTGC	420

594

TTCCGCTTGT CTTGTCAAGA AGACCTATAA CGGAGATGAT GAAGAAATTG GTGGTGACAG	480
CTGAGAATCT GGGTATTAAC CAATTGCAAG AGAAGTACCC TTACGAGATT TCTGGTGGTC	540
AGAAACAGCG TGTAGCAGTA GCCCGCGCCA TCATCACAGA ACCTGAAATT CTCCTTGCGG	600
ACGAGCCAAC AGGAGCCCTT GATTCCAAGT CATCTGCAGC CTTACTTGAT GTCTTTAATG	660
AAATCAATGA GCGTGGGCAA ACCATCCTCA TGGTAACCCA CTCAACAGCA GCTGCTAGCA	720
GGGCCAAGCG TGTTCTCTTT ATCAAAGACG GCATTCTTTA CAACCAAATC TACCGTGGAG	780
AGAAGACAGA GCGTCAGATG TTCCAAGAAA TCTCTGATAC CTTGACTGTC ATGGCAAGCG	840
AGGTGAATTA GTATGTTTCG ATTAACCAAT AAGTTAGCGG TATCGAACTT GATTAAAAAC	900
CGCAAACCTCT ACTATCCCTT TGCCTGGCT GTTCTCTTGG CAGTCACCAT CACCTATCTC	960
TTTTACTCCC TAACCTTCAA TCCAAAGATT GCGGAAATCC GTGGAGGAAC CACCATTCAA	1020
GCAACACTTG GATTGGTAT GTTTGTCGTT ACCCTTGGCT CACCATTTATC GTCTCTATG	1080
CCAATAGTTT TGTATGAAA AACCGTTCCA AGGAACTGGG TATATATGGC ATGTTAGGCT	1140
TGGAGAAGCG CCATCTAATC AGTATGACCT TTAAGGAGTT AGTGGTATTT GGGATTCTAA	1200
CTGTTGGAGC GGGTATCGGT ATTGGAGCCT TGTTTGACAA GTTAATTTTC GCTTTCCTGC	1260
TCAAATAAT GAAACTGAAG GTTGAGCTGG TTGCTACCTT CCAAATGAAT GTTGTCATTG	1320
CAGTACTTGT TGTCTTTGGA TTGATTTTCC TAGGCCTCAT GTTCCTGAAT GCTCTTCGAA	1380
TCGCCCCTAT GAATGCCCTC CAGCTCTCGC GTGAGAAAGC AAGCGGAGAG AAAAGAGGTC	1440
GCTTCCTACC TCTCAAACG ATTCTTGTT CCATAAGTTT AGGGATTGGC TATTATCTTG	1500
CCCTTACGGT AACCGATCCT CTTACAGCCC TAACAACCTT CTTCCTAGCT GTTTTGCTGG	1560
TTATCTTTGG TACTTATCTA TTGTTTAATG CAGGGATTAC AGTCTTCCTA CAAATCTTAA	1620
AGAAAAACAA GAAATACTAT TACCAACCTA ATAACCTCAT ATCTGTTTCC AACTTGATTT	1680
TCCGTATGAA GAAAAATGCG GTTGGACTAG CAACCATCGC TATTTTGTC ACAAATGGTTT	1740
TGGTAACCAT GTCAGCAGCG ACAAGCATTT TCAATTCGC AGAAAGCTTT AAAAAAGTTC	1800
TAAATCCTCA TGATTTTGGG GTTTCAGGC AAAATGTTGA AAAAGAAGAT TTGGACAAAC	1860
TCTTGAGCCA GTTTGCAAGT GACAAAGGTT ATAGTGTC AAGAGAAAGAA GACTTTCGTT	1920
ACAGTAACCT TGGTATTGCA AATCAAGAAG GAACCAAGTT AACTATTTT GAAAAAGGAC	1980
AAAACCGTGT CCAACCCACA ACAGTTTCA TGGTATTGA CCAAAAAGAT TATGAAAATA	2040
TGACTGGTCA AAAACTGTCT CTATCAGGAA ATGAGGTCGG TCTCTTTGCC AAAAATGACG	2100
GACTGAAAG ACAGAAAGCT CTAACCTAA ATGATCATCA ATTTCTGTC AAAGAAGAAT	2160
TTAATAAAGA TTTCATTGTG AACCATGTT CAAATAAGTT TAATATCTTG ACTACTGATT	2220

595

ACAATTACCT TGTTGTTCCCT GATTTACAAG CCTTTTGGGA TCAATTCCTA GATTCGGCTA	2280
TCTATAATCA GTTTTACGGT GGTATGAATG TAAATGTCAG TGAAGAAGAA CAACTCAAGG	2340
TCGCTGAGGA GTATGAAAAC TACCTCAATC AATTTAATGC TCAATTAGAC ACAGAAGGTA	2400
GCTATGTTTA TGGTAGCAAT CTAGCAGATG CTAGTTCTCA GATGAGTGCC CTCTTTGGTG	2460
GTGTCTTCTT TATCGGTATT TTCCTATCCA TTATCTTTAT GGTGGAAGT GTTCTGGTCA	2520
TCTACTACAA ACAAATTCTT GAAGGCTACG AAGACCGTGA ACGCTTTATT ATCTTGCAGA	2580
AAGTCGGTTT GGACCAAAAG CAAATCAAGC AAACCATCAA CAAACAGGTT TTAAGTCTTT	2640
TCTTCTTCTT TTTGCTCTTT GCCTTCATAC ATCTCGCCTT TGCCTACCAT ATGCTTAGCC	2700
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CAAGGTTCCG AATCATAGCT GTTTTGGTTG GGGCTTTTCC AAGTCTAGCA CTTGTGTAAC	3000
CAGTGAGAAG AAGGGCCACA CCGACAATAA GGACGGTAGC AGGGATGCGG TAATCACTTG	3060
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TGGAAATAAT TCCATCGTTA GCATCAAGAA CACCCGCACG CAGGATATTT AAACGACCTG	3540
CAAAATTGA ATCAATTTCG TGATTGTGTT CTGACGCTAA ATTTCAAGTT CAAGTTAGCC	3600
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CACTTTTCGA TGAATGCGAC TTCTTTGGGA GTCATTTTCT TGGTTCCCTT AGGTAACCAT	3720
CTACGAATGA GCCTGTTGTG ATCTCATTA GTTCCCTTT CCCAAGAGGC ATAGGGATGT	3780
GCATAATAAA TGTGCTCCTC AGAAAATACA TTAGACAAGC GATTGAATTC CGTTCCATTA	3840
TCTGCCGTGA TGGAAAGAAT CTTGTGTGT TTTAAGATGA GTTTTAGAGC CTGATTGACC	3900
ACATCAGCAC TTTTATTGG AATCAATCGG ATGATCTGAT GTCTACTTTT TCGATCCGTC	3960

596

AAGACAAGCA AGCAGTAGTT TTTCGCTCTC GTAAGTAGAA CTGTATCAAT CTCATAATGC	4020
CCATTCTCCA AGCGAAAATT GATAGCTTCA AGCCGCTGTT CGATGGATTG ACCAGCAGGT	4080
TTAAAGTTGG TGCTGGCCTG TTCTTTAAGC GCTTTTCCTT TTCTAGGGTA AAGCAGATCC	4140
TGTTTGCTTA ACCCCAATTT TCCATGATGA ATCCAATAGT AAATGGTTGA AATTCCCACG	4200
TTAACCCCTT TAGCCATCAC CATCATTTCA GGCGAAAATT TTTGGTTATG ATAGTGGAGA	4260
ATCTTTTCCT TTAGTTCCTT GGTCAGCTT GATTTCTTGA CCGAGCGCTT GCGATTGTTT	4320
TCATAAGACT GTTGAGCATA GTCGGCAGAA TAAACCTCTT TGAAGCGCCC TTTTCCAAGA	4380
CATTGTCCGA CTGTCCCACG CTGTGATTCA GTGTGGATAG TTTGAGGAAC TTTTCCAAGC	4440
AGAGAGGCAA TTTCTCTATT TGATTTCCCT TCTTTTTC ATCTTTTCGAT TAAGCGACGG	4500
CTATCGATTG TCAAAATGTT GCCTTTTGTA GTATAATGGT TTTGCATCTC TGTGCCTTTC	4560
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TGCAGAGCAG GTGAAAACCT GCTCTTTTTT CATGAGTCAA CCTTTAGTTC CTAGTTTTC	5220
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CCAATTTATG AGGCCTTGGT GAAGTTACGC AAGAAAAGGA TTGTTCCCTT TGATGTTCCA	5340
GGTCAACAAG GTGGACGGGG AAATCCAGAA CTGTGCGAAC TCTTAGGAGA AAAATGTGTA	5400
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CGTGATGCAG AGGAGCTGGC TGCAGATGCT TTTGGAGCTA GCCATGCCTT TCTAATGATT	5520
GGTGAACAA CTTCATCGGT GCAGACTATG ATTCTGGCAA CCTGCAAGGC AGGAGATAAG	5580
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ATTCCCCTCT ATATCGAGAT GAGTGTAGAT CCTAAGATTG GTATCGCTTT AGGTCTTGAA	5700
AATGACCGAG TAGCACAGGC CATAAAGGAC CATCCAGATG CTAAGGCTAT CCTAATCAAC	5760

597

AATCCTACTT ACTACGGCAT CTGTCAGAC CTAAGGGGT TGACAGAAAT GGCTCATGAA	5820
GCTGGCATGA TGGTTTTAGT AGATGAAGCC CACGGAGCGC ATTTGCATTT CACTGATAAA	5880
CTTCCAATTT CTGCTATGGA TGCAGGGGCT GATATGGCAG CAGTTTCCAT GCATAAGTCT	5940
GGTGGGAGTT TGACCCAAAG CTCCATTTTA CTTATCGGGG AGCAGATGAA TTCTGAATAC	6000
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GAGCTATCTG AGTATGCCCG CCGTGAAATC AATGCTATCG GTGGCTACTA TGCCTACTCA	6180
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ATCCAAGACA TCGAGCGCTT GGTGGTGCT CTGGCTGATA TTAAGAGACT CTATTCAAGA	6420
GATGGAAAAA ATTTGATAGC AGGAGAATAT ATTACGCCG AGTTAGTGCT GTCTCCGCAA	6480
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GGAGAATTTG TTATGTGTTA CCCTCCAGGT ATTCCTATCT TGGCTCCTGG TGAACGCATT	6600
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CTTGGTTGAG CTGTCGAAGA GACAGATCTA AGAGTTCAA ACCAGCTTTA TTATTTGAAA	7320
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TCTACTGGGT TATCCACGAA CTTTTGCCT TGTTACCTTA GACGAGATAA AACGTCTATG	7500

598

CGTTATCAAA CTCATTACCA ATTGAAACAA AAAACTGTGG TTAGAGCCTT TCGGAAATCG	7560
TCAAGCGATT GGAGGAAATG AACTAATCCA CAGTGGCTTA TTCCAAGTAT ACCACTTGGG	7620
CTTTGGCAGT AGCTAACTGC GCTAAATATA ATATAAGGAG AAATAGATGG ATTTATGGTT	7680
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TGGAAAAAGT GAATGGCAGG ATATCGAAGT CTTGGATACG CCAGCTTTTG GGAAAATACT	7800
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CCGCAAGGTC AATCAAGCCT TTCCAATCAG TCGGGTTTAT CAGGCCATA TTCCAAC TAG	8340
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TGACAAGGAA GGCTGAAAA AACGCCAGCT TTTACAGAA TACTACACTG CAAACTTACA	8460
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GTTGGACAAA AAGATATGTA TCTCCTTCAC CATGAAGAAA TCGAATCATT GGCCAAGAAC	9300

599

ATTCCAGGTG TCAAACGCAT TCGTTTCTTT ATGACTTTTG GTCAATCTTA CTTGACGCAC	9360
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CGTACAGTCG GAAAAACCAA TATTGGATGT ATCTTTACAG GTGTCAAAGA CGGTGTCAA	9540
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CAACAACCTT TGAAAGCAGT AGAAGAACAG TTTGTCCTT ACTTACATGA GCTAAAATGG	10380
CTCAATATGG GTGGTGGTCA TCATATTACA AGAGAAGGTT ACGATGTGGA TTTGCTGATT	10440
TCAGAAATCA AGCGTATCCG AAAAAGTTAC AATCTTGAAA TCTATATCGA GCCTGGTGAA	10500
GCCATTGCGC TTAATGCGGG TTATTTAGCA ACTGAGGTAT TAGATATTGT AGAAAACGGT	10560
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CTTCTTCTA ATACCTGTCT GACGGGCGAT GTGATTGGTG ATTATAGTTT TGAAAATCCA	10740
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CAAAAAAATT AGGCTATCAC ATGCCAGCAG AGTACGAACC CCATCATGGT ACCCTCATGA	10980
TATGGCCGAC TCGACCAGGA TCATGGCCTT TTCAAGGAAA GGCTGCTAAA AGAGCATTTA	11040

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ATGATGCCTG	GGCGCGTGAT	ACTGGCCCAA	CCATTCTCGT	CAATGATAAA	GGTAAGAAAT	11220
TAGCCGTGGA	TTGGGCCTTC	AATGCTTGGG	GAGGCACCTA	TGATGGTCTT	TATCAAGATT	11280
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ATGTAAACC	TTTGTACTG	GAAGGAGCG	CAATCCATAG	CGATGGTCAA	GGAATATTC	11400
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TGCCTATCCC	TGCAGTTCGA	CAAGTTGTGA	CAGAAGAAGA	TTTGCCAGGC	TACATCTATG	11760
AAGAAGGAGA	AGAAAAGCGA	TACGCAGGTG	AACGACTAGC	AGCTTCCTAC	GTAAACTTTT	11820
ATATCGCCAA	CAAGGCTGTC	TTGTTCCAC	AGTTTGAGGA	TGTAACGAC	CAAGTGGCCT	11880
TAGATATCCT	CAGCAAGTGT	TTCCAGACC	GTAAAGTTGT	CGGAATACCA	GCCAGAGATA	11940
TTCTCTTAGG	TGGTGGCAAT	ATCCACTGTA	TCACCCAACA	AATTCAGAA	TAGGAGAAAA	12000
AGATGAGAAA	TGTAAGAGTT	GCAACCATTC	AGATGCAATG	CGCTAAGGAT	GTGGCAACAA	12060
ATATCCAAAC	CGCAGAGCGT	TTAGTACGTC	AGGCTGCTGA	GCAAGGAGCC	CAAATTATTC	12120
TCTTGCCCGA	GTTGTTTGAA	CATCCCTATT	TCTGTCAGGA	ACGTCAGTAT	GACTIONTACC	12180
AGTATGCCCA	ATCTGTAGCG	GAAAATACTG	CCATTACGCA	TTTTAAGGTG	ATTGCTAAGG	12240
AACTACAAGT	TGTTTTACCA	ATCAGTTTCT	ATGAAAAAGA	TGGTAATGTC	TTGTATAACT	12300
CTATTGCCGT	CATTGATGCA	GATGGGGAAG	TGCTGGGCGT	TTATCGAAAG	ACCCATATAC	12360
CAGATGACCA	TTATTATCAA	GAAAAATTCT	ATTCACGCC	TGGTAACACT	GGTTCAAGG	12420
TCTGGAATAC	TCGCTATGCT	AAGATTGGTA	TCGSTATCTG	TTGGGATCAA	TGGTTCCCTG	12480
AAACAGCGCG	CTGTCTTGCA	TTGAATGGTG	CTGAATTGCT	CTTTTATCCT	ACAGCTATCG	12540
GTTCAGAGCC	AATTTTGGAT	ACAGATAGTT	GTGGTCACTG	GCAACGTACT	ATGCAAGGGC	12600
ACGCAGCAGC	GAATATTGTT	CCAGTCATCG	CAGCCAATCG	TTATGGTTTA	GAGGAGGTTA	12660
CTCCTAGTGA	GGAAAAATGC	GGACAGAGCT	CCAGTCTTGA	CTTCTACGGT	TCCTCCTTTA	12720
TGACGGATGA	AACAGGAGCT	ATTCTAGAAC	GAGCTGAAAG	ACAAGAAGAA	GCTGTTCTGT	12780
TAGCTACTTA	TGACCTAGAC	AAGGGAGCAA	GTGAACGCCT	AACTGGGGC	TTGTTTCGAG	12840

601

ATAGAAGACC AGAAATGTAT AGACAAATTA CAGATTAGTG TGGGAGAAAT GAGAGATTCA	12900
TTCTGCTAGA CTAACCTCTT ATTAGTAACT ATAAGATACT ATGGCATCTA GTAAATCGAT	12960
TTTTATGATT CGCTATTCTT GTCTATTGAT TAGTCCGTAT TTTAAATAT TAGCAAAAA	13020
GCAAAATAGCA GTAACCTCTG TCTATTGCT TTTCTTTTT ATAGAATATA TTTCTCAATA	13080
GCACGCGCAA CGCCGTCTT TTCGTTGCTT GAGGTAACGG CATCCGCAAG AGATTTGATA	13140
TAATCGCTGG CATTTCCTCAT TGCAATCCCA AGCCCTGCAA ACTGGAGCAT TTCGATATCG	13200
TTATTAGCAT CGCCCATGGC CATAATCTCT GAGGAATCAA TCTTCAAAAT CTCAGCTAGT	13260
CGTGAAAGAG CAGTAGCCTT TGTCGTTCCA AGCGGCATTG CTTCATAAAT GACAGGCTGC	13320
GAACGAATC CACTGAATCG TTGGCAAAGC TCTTCAGCAA AACGCTGCTC AAAATCGTCT	13380
GTTTGTCTT TTGTTCTTAA ACACATACCT TGGAACATCC GGAACCTTCC ACTAGTCGCT	13440
TCTTCAAGAG AAATTTCACT CAGGTCTGAA AATACTAGTT TAGCATCATT TTCAATAACT	13500
TGATTGGGCT TGTCACCGAG AACAAAATAA TGTGACTCGT CAAAAAGTGT CAACTGAACA	13560
TCACTCTTTT CAGCAAGGTC ATAGAGGTAT TCGATGTCAG CTGGACTCAG TTCTTTCCAG	13620
TCAACTAGAC TCCAATCACT GGTCTGGTGA GTTGAACAAC CGTTGTTAAC AATAATATAT	13680
TCGTTCTGGA GGTCAAGCTC CAGTTTTTTG TAGTAGGGGA GGACACCGAA AAGGGGGCGA	13740
CCCCATCAGA GAACCACTT GACACCTTTT TCAATGGCTT TGTGAATAGC AGTAATGTGT	13800
GCTTGTGGGA TTTCCTTGGC TTCATTGAGG AGGGTGCCGT CCATATCCAA GGCTAGTAGT	13860
TTAATCATAG GTCTTCCTCT TTATCTTTGC TATTATTATA GCATATTTTG GAGAAGAAAT	13920
TGATAGAAAG CTTGAGACTA ATTGATTTTA TAGTTTAAGA TGTTTTGATG ACAATTCATG	13980
ATTTGAAGAG GATATTTTCG AAAGATATGC TATACTATGT TTGTCAATGT TGCAACTAGA	14040
CAAATTAATA AACCAACTTA ATATAATAGT TTTTTTGTA GTAGGTATGA GTAGCAGATT	14100
ACTCAACTAA TCTGAAGAAT AATGGAGGAA ATATATCATG ATTTTAAATGA CAAAAATAT	14160
AAATCTAACA AATGAAGAAT TAGAGCTGAT ACAAGGTGGA GCAGATCCAT ATGGTAAAAA	14220
TCCTAATGGT AGGTACGATT GGGAAATAGA ACCAGTATTA ACTCTGCTGG TTCATGGATT	14280
TTGTCCCAGA GGCACCTATG ATTCAGGATA TATTGGAGGA GGTAATCATC TTTGCAAAGG	14340
AAGTGCTGCG AGATTTTAAG TAAAATTTAT TAGGAATATG AAGAAACAAG GGGAGAAAAAC	14400
AGAGGATTTA ATATGAAAAA ACGAGCTATT CAAATTTTAC TAGCATTGTC CTTAATTTTT	14460
TACAAATCAA CTTGGTTTTG GAGGCTTTTC AATTATCTCG CAAAGCCCTA TCTACCAGCA	14520
AGTCGTGAAT TTTTTCAGAT TCTGCTTTTG ATGGAGAGCG GAGTTCTTTT CTTAGCGGTC	14580

602

ATCTATCTAC TGGTTTTGTC AGGAAAGAAA ATTTTTCATT TCAAGTGGCA GCTGAGGTAC	14640
TTCATCTACC TTTTACTGGG CTACATCATT TCATATATGT CTGACTTCCT CTTTTCGTAT	14700
TTTCATATCCC TGTCTTCAAA TCAGATTCTT TTGAATGAAA CGGTAGAAAT GATGGGGAGA	14760
CAGGAGTTCC CTTATGTCTT GCTCATCGTT TGCTTCATCG CCCCTATTGC TGAGGAATTG	14820
ATTTATCGAG GtGTGCTTAT GACAACCTGT TGCAAAACT CACCTTGGA CG	14872

(2) INFORMATION FOR SEQ ID NO: 73:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10223 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 73:

CGTGCTATCG GTCTCAAAAC CAATCTGGTC GCTATGGTCA AATCCAGTTG GAAAATCCAT	60
TCTTCTTGGG GCCATCTGCT GGATTGCCAT CATCCTCACC ACTCTTGGTA TGCAGACCCCT	120
TATCGGCATT TTCTAATACT CTTGAAAAT CTCTTCAAAC CACGTCAACG TCGCCTTGCC	180
GTAGGTATAT GTTACTGACT TCGTCAGTTC TATCTGCAAC CTCAAAACGG TGTTTGAGCT	240
GACTTCGTCA GTTCTATCTG CAACCTCAAA ACGGTGTTTT GAGCTGACTT CGTCAGTCGT	300
ATCTACAACC TCAAAACAGT GTTTTGAGCT GACTTCGTCA GTTCTATCTG CAACCTCAAA	360
ACAGTGTGTT GAGCAGCCCG TGGCTAGTTT CCTAGTTTGC TCTTTGATTT TCATTGAGTA	420
TAACACAAAA GGTAGCCCAT CAGCTACCTT TTTCTTATGC TTCCTCAATC AAGCGAGTAT	480
GTCTCTCTTT GATACAGCGA TTCATCAGTA TATCATCACA TCCACCATCA CGCAAAATCT	540
CTTTCGCTTC TAAACTTTCA AGTCCTAGCT GTGCCCAAAA AATCTTGGA TCAGCTTTGA	600
GAAAATCAGC CGCCACATCG GGCAGAAATT CACTGCGACG ATAAACATTG ACAATATCTA	660
CAGGAAAAGG AATTTACAGC AGGCTAGCAT AAGCCTTTTC ACCCAAGATT TCGCCACCTG	720
CCGCCTTGGG ATTGACTGGG ATGATTTTAT AGCCCCGAGC CTGCATTTC TTTGTTACTC	780
GATTGCTGGT TGTTCCTTCA CGGTCAGACA AACCACCAC AGCAAGGGTT TTAATCGTTG	840
CGAGATACTG ACGAATCAGC CCATCACTTG GATTGATAAA TTCTTGACTC ATAGAAATCC	900
TCCTTTTTC TCAATATAGC ACATTTTGAA AAGGTTTGCA GAATTATACT ACAAAAAAGG	960
AGGACTAGCC CCCTTTTAT TTAGCCTCGT ACCAGGTTGC CCCTTCATTC TCATCTGCGA	1020
TAAGAGGAAC ACTGAGTTGA ATGGCTTCTT CCATGGTTTG TTTCACCAAT TTTTTCATCT	1080
CTACCAATTC AGATTTAGGC ACTTCAAGGA CGATTTTCATC GTGCACTTGT AACAGCATCT	1140

603

TAGTCTGATA ACCACCTGCA ACCAAGGCTT TATCCAGCTG AATCATGGCA ATCTTGAGAA	1200
TATCTGCTGC CGAACCCTGG ATAGGTGAGT TGATAGCAGT TCGCTCCGCA AAACCACGAA	1260
TATTGAAGTT GCGCGAATTG ATATCTGGCA ACTCACGGCG ACGCTTAAAG AGGGTCTCTA	1320
CATAGCCCTT ATCACGCGCC TCCCGCACCA CTTTCATCCAT GTAGTTTTTA ATACCTGGAA	1380
AACGTTCAAA GTAGGTATCA ATGTAGGCTT TGGCTTCCTT ACGACTAATT CCCAAATTAT	1440
TAGACAAGCC AAAGTCTGAA ATCCCATAAA CCACTCCAAA GTTAACTGCC TTGGCATTGC	1500
GACGGTCGTT TGCAGTCACA TCATCAGGAC GCTCAATGCC AAAGACCCGC ATGGCTGTCG	1560
AAGTATGGAT ATCTGCCCCC TCTTGAAGG CCTTAATCAA GTGCTCATCC TTAGAAATAT	1620
GCGCCAAAAC GCGCAATTCA ATCTGTGAAT AGTCAGAGCT GAGTAGCACA CTATCCTCCC	1680
ACTCTGGCAC AAAAGCCTTC CGAATCAAGC GCCCCTGTTC CAATCGGGCA GGAATATTTT	1740
GCAAGTTTGG ATCCACACTA GACAAACGCC CGGTCTGGGT CAAATCCTGC ACATAGCGAG	1800
TATGAATCTT TCCATCAGCC AAAATCCAGT CCTGCAAGCC AATTACATAA GTAGATTGAA	1860
TCTTAGCAAT TTGACGGTAA TCCAGGATTT TCTTAACAAT CGGAGCAATA GGAGCGAGAC	1920
GCTCTAAAAC ATCCACTGCT GTCGAATAAC CTGTCTGGT TTTCTTAGTG TATTCTAGAG	1980
GAAGTCCCAA TTTCTCAAAG AGAAGCACGC CCAACTGCTT AGGCGAGTTG ACATTAAACT	2040
CCTCACCAGC CAGCTCGTAA ATCTCTTGAG TCAGTTTTTC AATGACAAGC TCATTTTCAG	2100
CCTGCATCTC AAGCAAGGTC TCTTTCTTGA CCATAATCCC AGCAATTTCC ATCTTGCCAA	2160
GGACAAAAGC CAGAGGTTGC TCCATATCAT AAAGAAGCTC TAATTGCCCA TTTTCGCTGA	2220
GTTTTTCAAG TAAATAGGC TCTGTTTCTA CCAAAACAGC AAGTTTACAA GCTAAGTGTT	2280
CCAAGAATTT CTCACGTTCA GGAATGGCCT TTTTAACACC CTTACCGTAG AAAGTTTCAT	2340
CATCAACCAA GTAAGTCTGA CCATAAAGAC TAGCGATGGT CGCAATTTCA TTGTCCTCCA	2400
CAGTCGAAAG GAGGTATTTA GCCAAACGGA TGTCAAAAGC AGGCGCCTGC AAATCCACAC	2460
CAAAACGTTG CAAAAGAACT TTAACCTTCT TAAAGTCATA AACTCTCAGA GATGTTTTTT	2520
CTAAGAAATC CTTGAAAATC GGGTCTTGCA ACAGCTCAAG CTTGTCGTG GCATAGAGCT	2580
TATCCCCACA AGACCAGACA AATCCAACCA AATTATCCGT ATGGTAATTC TCACCAAAAA	2640
GCTCAAAGTG GAAGATAGAC TCTTCACTCA GCATATCTTG ACTGATTTGG TCAACAATAG	2700
TAAATCCAA ACTCTCAGAC ACATCAGCTG ACGACACATT TAAAGCCTGC TTTAGCTGTT	2760
TGAAGCCCAT CTCATCGTAG AATTTCCTCA GATTTTCAAC ATCTGGACCA CTATAGACCA	2820
AGTCCTCTAA ACCAATCGCA ATCGGTGCCT TGGTATCAAT GGTCGCTAGT GTTTTAGACA	2880

604

AAAAGGCCTG TTCCTTGTC	TTGATGAGAT TTTCTTCAT	CTTAGAAGTC TTCATTCCAT	2940
CAATATTTTC ATAAATCCCC	TCAAGCGAAC CATGCTCCAG	CAAGAGCTTA ATACCCGTCT	3000
TTTCACCGAC TTTGGTCACC	CCAGGGATAT TATCCGACTT	ATCACCCATG AGCGCCTTGA	3060
GATCGATAAA CTGAGCTGGT	GTGAGGCCCA TTTCTTCCAT	GAGGTAATCT GGCGTAAAGG	3120
CCTCAAACCT AGCCACACCT	TTCTTGGAAT TTTCAACCAC	CGTATGCTCA TCCGTCAGCT	3180
GAATCAATC CTGTGCCCCA	CTGACAATAG TAATATCAAA	ACCATCCTGC TCTGCTAGCT	3240
TATCCAGCGT CCCAATGATG	TCATCCGCCT CATACTGAGC	CAGATCATAG TGACGAATCC	3300
CCATATGATC CAGCAACTCA	CGAATGAAAG GAAATTGCTC	ACGAAACTCA TCAGGAGTCT	3360
TGGCCCGACC ACCCTTATAG	TCCGCATACA TCTCTGTCCG	GAAGGTCGTC TTTCCCGCAT	3420
CAAAAGCCAC CAAAATATGA	CTCGGCTCAA CCCGCTCCAA	TAAATGACTC AACATCAACT	3480
GAAAACCATA AATCGCATTG	GTATGCAAAC CAGCCACATT	CTTAAACCG TCCAAC TGCT	3540
GATACAGCGC AAAAAACGCC	CGAAAAGCTA CAGAAGACCC	ATCAATCAAT AATAATTTT	3600
TCTTATCCAT ACACCCATTA	TAAAGGAAAG AATCAAAAAA	TACCATTGGG AAGAGCTAGA	3660
GCAAGTATTT TTCAAACCTT	TTCCGAATAA ATAGATAGAG	CCAGAGAATT TAGTAAACCT	3720
AGATTTAAAA ATGTGCTATA	ATATAGTATA TTGAATCTAT	AATAGTACAC CTTGACTGCT	3780
AAAATATTTT TATAAATTAA	TTTGACTTTC CTGATAGAGT	TATTCACATC TTATTTCAAC	3840
TCATATAGA AGGAGGAATA	GGAGGATTCT CAGACATCCG	GGCATCAGCC CAACTAATGA	3900
TTTGATTGCT AAGAAAATAT	TCAGCAATCC AGAAATCACT	TGTCAATTTA TTCGCGATAT	3960
GCTGGACTTG CCAGCAAAAA	ATGTGACCAT TTTGGAGGGA	AGCGATATTC ACGTATTACT	4020
CTCCATGCCT TACTCGGTGC	AGGATTTTTA TACCAGTATA	GACGTCTTGG CGGAGTTGGA	4080
TAACGGTACT CAAGTAATTA	TTGAGATTCA AGTCCATCAT	CAGAATTTTT TCATCAATCA	4140
CTTGTGGGCT TACCTGTGCA	GTCAGGTTAA TCAAAATCTT	GAAAAAATTC GTCAGCGAGA	4200
AGGTGATACT CACTAGAGCT	ACAAACACAT CGCTCCTGTT	TACGCCATTG CTATCGTGA	4260
TAGTAATTAT TTCTCAGATG	ACCTGGCTTT TCATAGCTTT	AGTATGCGCG AAGACACAAC	4320
AGGTGAGGTA TTGGCGATTA	CCAACAATGG ACAGGAAAAAC	CATCTGGTTA AGATGGCATT	4380
CTTGGAATTA AAAAATACAG	AGAAACCAGC AAAGACAAGG	TTGCAAGCC ATGGTTGGAG	4440
TTTTTCGGCA ACAAGCCCTT	TACCCAGCAA CCGCAACGAG	CCATTACCCA AGCAAATCAA	4500
CTGCTGGACT ACAAGAGCTG	GTCCGAGGAG GACAGGAAAA	TGTTTAGTCA ACTACATATG	4560
CGAGAAGAAC AAGTCTTGTT	AGCACAGGAC TATGCCTTGG	AACTGCTAG GGCTGAAGGC	4620
CTTGAACAAG GACTAGAGCG	TGGGAAAGTT GAAGGAAGGG	CAGAAAGGAA ACTTTTGGCC	4680

605

TTCCTAGACA TAGTACGCCA AGGTCTTCTG ACTTCTGAGG TTGCCAGCCA GCAATTAGGT	4740
ATGTCAGTAT CTGAATTTGA GGCACTGTTG TAAAATGGCT CCATAATATC CATAGTGGGT	4800
AAATCCCCTA TGGATATTAT GGAGCCTATT TTGTGTAGAA AAAAAGTCCC ATATGACCTA	4860
TAATGAAAAG CGACAAAACA ACTCATAGA AAGAATCATA TGGACAATT ACATTTTATC	4920
ACAAAATTAC TAGACATTAA AGACCCTAAT GTCCAGATTT TAAACATCAT CAATAAGGAT	4980
ACACACAAGG AAATCATCGC CAAACTGGAC TACGACGCC CATCTTGCCC TGAGTGC GGA	5040
AACCAATTGA AGAAATATGA CTTTCAAAAA CCTTCTAAAA TTCCTTATCT TGAACGACT	5100
GGTATGCCTA CAAGAATTCT CTTAGAAAAG CGTCGATTCA AGTGCTATCA CTGTTCAAAA	5160
ATGATGGTCG CTGAAACTTC TGATGACGTA CAGTCATATT TCTTCTCTTT TTATTATATC	5220
ACAGTTTAA ATCTAGCTTT ACTAGATTCA CCGCTACTAT CTATTTATTC GGAAAAAGA	5280
CGAAAAACC TGAGAATCAT CTCAGGCTTG GTCATTAAAT TTTTTCTCA ATATCGAAAA	5340
GTGGAGAAAG TGGTCGTTTT TCATGAATAC GTACGATAGC ATCCCCTAGG AGATGAGCGA	5400
TTGAAATCTG CTCAATCTTA TCAATCAAAC GCTCTTCTGG CAGATAGATG GTATCCAAAA	5460
CAACCAATTT CTTAATAGCT GATTTTGGGA TATTGTCCGT AGCAGGACCA GAAAGAACTG	5520
GGTGCCTACA GCTTGATAG ACTTCAACAG CACCAGCTTC CGCAAGAGCA TCTGCCGCAT	5580
GACAAATCGT TCCAGCGGTA TCAATCATAT CATCAATCAA GATACAAGTC TTGCCTTCAA	5640
CCTTACCGAT GATATTCATA ACTTCACTAG TATTCATCTT ATCAACGCTA CGACGTTTAT	5700
CAATAATAGC GATAGATGTT TTCAAAAATT CTGCCAAGTT ACGAGCACGA GTCACCCCTC	5760
CATGGTCCGG GCTGACAACC ACATAGTCAG AACCAACCAT ACCACGACGC TCAAAATAAT	5820
CTGCAATCAG AGGAGCACCC ATCAAATGAT CCACAGGAAT ATCAAAGAAT CTTGAATTT	5880
GCGCAGCATG CAAGTCGATG GTCAATAAAC GATCCACTCC AGCTACTTCA AGCATATTTG	5940
CGACAAGTTT TGAAGTGATT GGCTCACGCG CTCTCGCCTT TCTATCCTGA CGTGCATACC	6000
CATAGTAAGG CATGACAACA TTGACAGATT CTGCACTCGC ACGCTTCAA GCATCTACCA	6060
TAATCAAAAT TTCAAGCAGA TTGTCAATTA CAGGCGAAGT AGTTGATTGT AAGATAAAGA	6120
CGTGTTCCTC ACGGATTGAT TCTTCAATGT TGACCTGAAT CTCTCCATCT GAAAATTGGC	6180
GAACACTTGA TTTCCCAAC TCTATCCCAA TCTCCTGCGC CACAGTTCT GCCAATTCTT	6240
TATTAGAAGA AAGGGCAAAC AGCTTTAAAT CAGAAAAAGA CATGATTTCC TCCGGTATAT	6300
ATGTATAACT TGTGCTTTTC ACAAGATTTT CCATCTACCA TTGTAGCGCT TTTTGCCTA	6360
TTTTTCAATC AAAAATAAAA GAAGGGCACC ATATTTGTAC CCTTGCATCA TTCTTTTGAA	6420

606

AAATATTCTA	GGTCATCAAC	TCATTGTGTT	TCTCAACAAA	GCAATAAGCA	TGATAAAAAC	6480
CATAGAGAGC	AATAGCCGTA	ACCACTGGAA	TCGCTAAAGG	CAACTCTGTT	TCCAACTCCA	6540
CAAAAGGAGA	GTTAAACAAG	AAGTGAGTTC	CCAAGGCTAA	ACCTAGAAAA	ATAAGGCCCT	6600
GTTTCTTGCC	AACCTTCTGT	CCTTTATAGG	CTCTGTAAAG	CAAGTAAACA	CCTACTACAG	6660
CTAGACCTGA	AAAAGTCCAG	TGAGAGGCAA	TTCCTGAGAT	GATACGCTCT	AAAATTGCGG	6720
AAATAGTAAA	GTCAAAGCCC	TCTGGCAAAT	CCGTACGAAT	ATAACCAATA	TCCTTAATCA	6780
TTTGGAATCC	CAAACCGGAA	GCAATTCCAA	GTAAAAACAA	AGATTTTAAT	TTTCGCACAG	6840
GAATCAAAGC	CAAAACAAAA	ACAAGTGACA	ATAATTTCAA	GGGTTCTTCT	ACCAAAGGAG	6900
CCGCAATAGC	ACTTTCAAAG	GCATTTAAAA	ATGGACTATC	TGGGAAAAGA	ACCCCCAGTA	6960
AATCATGGAT	ATAAGTATTA	GCAAACTAG	ACAACCAGCC	TGAAAGGAAC	ATCCCTCCCA	7020
ATAAAGACAG	AATCAAAACC	TTCTTTGGCA	ATTCCCATTT	TTCCCAATAC	GGAAGAGAAA	7080
ATAAAGAGCC	GGAATCATGT	AAAAGAGAGC	TAGAAAGATA	GAAACTCCCA	TTAGTCCATA	7140
TTCCGCACCT	GACCTCGAAC	CGTCCGTATA	GTAGATGGTT	TCATACTGTA	AACCAATACA	7200
TAGCAATAAA	ATAAAAATAA	ATAAAATATT	GCTTTTCTTC	ATACACTTTC	TTTCTAAATG	7260
AAGTATTTAT	AATCTACGA	CTGTCATACT	TCCTGTATCA	ACATTGTAAA	TGGCACCAGA	7320
GATAATGACA	TCGTCTGGTA	TTAGGGGAGA	CTCGATAAGC	AGTTGCATAT	CCTCGCGTAC	7380
ACTCTCTTCT	ATATCTTGA	AGGGCAAGAA	GTCTTGGTCT	GACACATCGA	CACCCAATTTC	7440
TTCTTTCAAA	TACTCCTGAA	AAGGTTCAAT	TTCAAAGGTC	TGAGCACCAC	AGTCTGTATG	7500
ATGCAATACC	ACAATTTCTC	TTGTCCCAT	TTGTTGCTGG	GAAATAACTA	GAGAACGAAT	7560
CATATCCTCA	GTCACCTGAC	CACCTGCATT	CCGCAAAATA	TGAGCATCCC	CAAGTGCCAA	7620
ACCTAGAGCT	TGCGCAACGT	GCAAACGTGA	GTCCATACAG	GTCACAATGG	CTACTCTGGT	7680
TTTAGGTTTA	AGTGGCAGAT	TTAACTGCCC	ATGTAGGGCA	ACATAAGCCT	GATTGGCTTG	7740
CATAAACTGT	TCAAAATACG	ACACGATTC	CTCCTTGAAA	ATTTGATAGT	CAAAATATTTC	7800
TCCTATCTTA	TCATTTTAA	GAGAATTTGT	CACGGATTAT	GCAAAGACCT	TTTTCAAGAC	7860
TTCTGAATC	GTTGTCACGC	CAATGACCTG	AATTTCTTAA	GGCAGAGTGA	TTCTGTCAA	7920
GGAATTCTTA	GGTACATAAA	TCTTAGTAAA	GCCCAGTTTA	GCAGCTTCGT	TGATGCGTTG	7980
CTCAATACGA	TTCAAGCGCC	GAATCTCTCC	TGTCAAGCCC	AGTTCTCCGA	CAAAACATTC	8040
CTGAGGATTA	GTTGGCTTGT	CTTTGTAGCT	CGAAGCAATA	GCAACTGCAA	CAGCCAAGTC	8100
AATCGCAGGT	TCATCCAATT	TAACACCACC	AGCAGATTG	AGATAGGCAT	CCTGATTTTG	8160
CAAGAGAAGC	CCTGCCCGTT	TTTCCAAAAC	AGCCATAATC	AAGCTAGCAC	GGTTAAAATC	8220

607

AAGTCCTGTC GTAGTACGCT TGGCATTTC AAACATGGTC GGTGTTACCA AAGCCTGAAC	8280
CTCCGCCAAA ATCGGACGCG TCCCTTCCAT GGTTACAACG ATGGAGGAAC CAGTCGCCCC	8340
ATCCAAACGC TCTTCTAGGA AAACCTGACT CGGATTGAGT ACCTCAACCA AGCCGCCCCGA	8400
CTGCATCTCA AAAATCCCAA TCTCATTAGT GGAACCAAAA CGATTTTGA CCGCTCTCAA	8460
AATACGAAAG GTGTGGTGAC GCTCCCTTC AAAGTAAAGC ACCGTATCCA CCATATGCTC	8520
CAACATACGA GGCCAGCCA AGGTTCTTC TTTGGTCACA TGACCTACGA TAAAGATGGC	8580
AATGTTATTG GTCTTGGCCA ACTGCATGAG TTCAGCGGTC ACTTCACGCA CCTGAGAAC	8640
AGACCCCTGC ACCCTGAAA TCTCAGGAGA CATGATGGTC TGGATGGAAT CAATAATGAG	8700
AAAGTCTGGC TGGATACGCT CCACTTCTGC ACGAACACTC TGCATATTGG TCTCTGCATA	8760
GAGATAAAAC TCACTATCAA TATCACCTAA GCGCTCTGCA CGTAGTTAA TCTGCTGGC	8820
AGACTCTCC CCACTGACAT AGAGAACTGT CCCCCTGG GACAACTGGG TTGAGACTTG	8880
TAGGAGAAGA GTTGATTTC CAATCCCAGG ATCCCCACCG ATAAGGACGA GACTTCCTGG	8940
TACCACTCCG CCTCCAAGCA CACGGTGAA TFCCTCCATC TCCGTCTTG TTCGATTGAC	9000
ATTGATGGAA GTCACCTCAG CTAGTTTCAT GGGCTTGTT TTCTCACCTG TCAAGGACAC	9060
ACGCGCATTC TTAACCTCG CAACCTCAAC CTCTCCACA AAAGAAGACC AAGACCCACA	9120
GTGGGGCAA CGTCCAGAT ATTTAGGGA ATTATACCCA CAATTTGAC ATACAAATGT	9180
CGCTTTTTC TTTGCGATGA CAAACCTCT TCTATATCTC TAACTCACAC TCAATCACTT	9240
GGCAAAAATC AATCTTCTCA TTTGGCACA ACTGGCGCAT GAGCATTCGA TGAGCAACAA	9300
CTACCACAGT CTGATGTTCT CGATACTTAG ACATACATTC TAGAAACCGA GACTTCATTT	9360
CCGTAGCTGT CTCATATTGA ATAGGACTAT TAGGAAGCAA CTCCCCCTTG TTTCTAAAA	9420
ACAGTCTTCT AGCTGTTCA AAGTTTCTA TTCCTGTTT ATAGACCTGC CATTCATGTA	9480
ATAAAGGCTC TACTCTTAA GGAAGACCCG TAGCACAGAC CACATACGAA GCCGTTCTA	9540
AAGCTCTTGT GACTGCAGAA GATACGATTA TTTCAGCTGA CGAGAGTAAA GGATTTTGC	9600
TCAATTTCTG GACTTGCTGC CGTCCATCT CAGACAAGGG TGCCAAATCT ATCCCAAATC	9660
CTATATAAGA ACGCTCCTCT AACTCACGGT AATCTGGCTC CCCATGACGT ACAAAGATAA	9720
TCTTCATTCT AGTGCCCTGT CGATCCAAAT CCACCAGTTC GAACGCCATC AGCTGCATCT	9780
CCATCTGCAA TTAAGAAAGT AGCAAAAACA GCCTGGACAA TACGCTCCCC AACTTCAAGA	9840
ACAACCTCTT GGTCTGTGAT ATTCTTCATC TCGCAAAAA TATGCCCTTC ATTTCCAGGA	9900
TTTCATAAT AATCCCCATC AATGACTCCA ACTGAGTAA TTAAAACCA GCCCTTCTTA	9960

608

CGAGGATTTC AAGAACGATC ATAGAGGTAG AGAACCTCAG TCGGCTGCAT ATAAGCCTTA	10020
ACCCCTGTCTG GAACCAAGAC AATCTCTCCT GCGCAACAA CTGTACGCAC AGCAACCTTT	10080
AAGTCGTAAC CAGTCGCATG CGCTGTCTCA CGCTTGGGCA ATAAATTTTC ATCTGTAAAA	10140
CTCGAAACCA ATTCAAAACC ACGAATTTTC ATAATTTTCT CTTTCTATT ATCATTATT	10200
CTAGATTATT CTATACTTAT TTA	10223

(2) INFORMATION FOR SEQ ID NO: 74:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 16535 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 74:

TGGTCTCTGTC CTTATCGGCG CCTTGTCTTG CTTGCCATGG CTACACCAAC TATCTCATCC	60
GACGAAAGTA CACCAACCAC TAACGAACCC AACAACAGAA ATACAACCAC CCTTGCCCAA	120
CCTCTTACTG ATACAGCAGC TGGCTCTGGT AAGAACGAAA GTGATATTTT TTCACCTGGA	180
AATGCAACG CTTCCCTAGA GAAAACAGAA GAAAAACCTG CTGCAAGCCC AGCCGATCCA	240
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610

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611

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612

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613

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614

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616

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AGTCAGCATG AGCATAATAC TCCATATGAC CTGTAATCCC AAAACGTGCC CGTAGTGGAT	14520
TTGAGAGCAT ACCAGCCCGA GTCGTCGCAC CAATCAAGGT AAAAGGAGGC AACTCCAAAT	14580
GAACACTGCG ACTGCCTTCA CCAGCCCCAA TCATAATATC GATCTAGAAG TCCTCCATGG	14640
CACTATAAAG CACTTCTTCC ACTGACATGG GTAAGCGATG AATCTCGTCA ATAAAGAGGA	14700
CATCTCCAGG CTCTAAATCA TTCAAAATCG CTACCAAATC ACCCGCTTTT TCGATAACAG	14760
GACCAGACGT TTGCTTGAGA TTGACTCCCA GTTCATTGGC AATGACAAAA GCCATGGTTG	14820
TTTTCCTCAAG CCCTGGAGGG CCAAATAAGA GCACATGATC CAGCGCTTCA TCCCGCATTT	14880
TAGCGGCTTC GATAAAGATC TGAAGTTGAT CCTTAACCTT ATCCTGACCA ATATATTAC	14940
GTAAATACTG AGGACGGAGC GTGCGTTCTA CTAATCCTC ATCACCCTC ATCTCATTAT	15000
CTAAATTTCT ACTCATGGCT CTATTATATC AAAAAAACA AGCCACAAAC AAAAAAGCCA	15060
CCTGATTGGG TGAATCCTAA GTTTAGCACT TATGTGGTAT AATATTATAC GGCACTTCTA	15120
CACCGCTTAC GAAAGGAGGT GAGATAGCCC ATGATGGAAT TAGTACTCAA AACTATTATC	15180
GGACCAATTG TGTCGGTGT CGTCTTCGT ATAGTCGATA AATGGCTAAA CAAGGACAAA	15240
TAGTGTCAAA AAAGACCTCA AGCTTATTTG GTCGTGAGCT TGGGGTCTTT TCTAGCCTAT	15300

617

GATATAGAAC TAGTACTCAA TTCCTTTTTA TTATCCCATTA GTTCACGAAT TTTGTCAAAA	15360
CTTTACATTT TCTTCAACCG CTGTACGACA AGACGGTTAA GATTAAGAGA ACGTTAGGGA	15420
TTCTATCAAT TTCATAGAAA TTTTGATTTC GTAAACGAAG AGACAATCTT ACATGTCCT	15480
TCTCATTTAA TACGCCACTA CTAGACAAGC AAAATCATT TACAGTAGT TCCAGTCCTT	15540
CAATTAACAG TCACCTACAA TCAAATTGAG TTTGAACTAG CTGAAGCGAC CACAGACCTA	15600
TTTCTTAGTC ATATTCGCTA AAAAAATCCC CGCCAAAATC TCAAAAAGTC CCCGCCAATT	15660
CCCCGACCAA AATCCGAAAA ATACCGAAAA ATATCGAAAA ATTATTTTTA GAATAGTCCC	15720
AAAAATCCTG AAATAGAGCT AAAAAACTCC ACCTGATTCG GTGGAGTTAA GGGAGATTAT	15780
TATGAAAAAG AAAAGTTTAG GATTTTATTA AATAAAGTTA GGAGGTCTTT ATTTAATAAC	15840
TACATGATAC AAGACGAAAC TTAAGACTAG CTTAACTTTT CTAAAATTTT ACTATTTTGC	15900
AAAAAATTTT TATCACCAGC ACCTCACCAA TCGAGTAGGG GATAATCTCT AGCCCTCTC	15960
ACACCACCGT ACGTGCCGTT TGGCATACGG CGGTTCAACT AACTTTTAAC GCATGTCGTT	16020
CAAGGTAATA ATCCAAACAC GAAACCAGTC CACGTTTTC CAGGACTGGT TTTGATATAG	16080
CACGTTTAAG TACCGACTTC TGAGCTACTA ATTGATAATG GTCGCCCCAG CCAGATACCT	16140
TATCTGCTAT CCATTTAGGA ACTCCTAACT TAAGCAATCC CCATAATCGT CTCGATTCT	16200
TCTTCCATTG CTTCCAGATA ATCACTCGTA GCGAGTACG CAAGCGCTCA TCTATGCTGC	16260
CGACTATACT TTTTATATT CCCAATGAGC AATAGTTTAT CCATCCTCGA ATAGACAAAT	16320
TCAGTTGCTC AATACGTCTT GTTAGGTCTA TACTCCATT CCTCTGTGT AGTTCTTCA	16380
ATTTAACTT AAATCTCCGA ACACTATCTT GATGTGGACG GCTTTTCCAA CCATCTGATA	16440
ATTTCCAGAA CCAAAACCT AGATATTTCA ACTCTCTGG TCATGTTTAC TTTCAAACCT	16500
AGCCGTTTCT CAATAAACGA CTGACTGAAT ACATC	16535

(2) INFORMATION FOR SEQ ID NO: 75:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8136 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 75:

CCAGAGCGTT GCGTCCGAAA GTCTATCCAG ACACGGCTCT TAAAAACAA AAGGAGAAAT	60
GATGCATACT TATTGCAAA AGAAAATTGA AAATATCAA ACAACCCTAG GTGAAATGTC	120

618

AGGTGGTTAC CGTCGTATGG TTGCGGCTAT GGCTGATTTA GGATTTTCAG GAACTATGAA	180
GGCTATCTGG GATGACCTCT TTGCCCATCG TAGTTTGGCC CAGTGGATT TTTGCTGGT	240
TTTAGGAAGT TTTCTCTCT GGCTGGAGTT GGTTTACGAA CATCGTATTG TTGACTGGAT	300
TGGGATGATT TGTAGCTTGA CAGGGATTAT CTGTGTAATC TTTGTATCGG AAGGTCGAGC	360
AAGTAATTAT CTTTTTGGCT TGATTAACTC TGTATTTTAC CTTATTTTGG CCCTACAGAA	420
AGGCTTTTAT GGTGAGGTGC TGACGACACT TTAATTCACA GTCATGCAGC CAATTGGACT	480
TCTAGTTTGG ATTTATCAGG CACAGTTTAA GAAGGAAAAG CAGGAGTTTG TCGCGCGTAA	540
ACTGGACGGC AAGGGCTGGA CAAAGTATCT TTCCATTAGT GTGCTTTGGT GGTGGCCCTT	600
TGGCTTCATT TATCAGTCTA TTGGTGCCAA TCGTCCCTAT CGTGATTCAA TCACAGATGC	660
AACCAATGGG GTAGGGCAAA TCCTCATGAC AGCTGTTTAC CGTGAACAGT GGATATTCTG	720
GGCGGTACC AATGTCTTTT CAATCTATCT CTGGTGGGGA GAAAGCCTGC AAATTCAGG	780
GAAATATCTA ATTTATCTCA TTAACAGTCT AGTTGGTTGG TATCAATGGA GCAAGGCAGC	840
TAAGCAGAAT ACTGATTTAC TTAAGTAGGA AAAGATGTTT GAAAGTGCTG TTTTGAGATT	900
TCGATTAATA CAGATATAGT TGATAATCAA GGATTTATAG TATGAAAAG AGGATCGGCG	960
GGTCTCTTTT TGTTGTTGAA AAGATAAAAA ACTCAGTAAC CTAGAAATAA GACAACTGAA	1020
GCTTTACTCT ATATTCAATT TTTAGGAATG AGAAGGTCTA GATAAAATTG GACAACTTCC	1080
TGGTCTGTGA AATCTTGACC TTTTGTGAGC CACCAGGTCA ATGTCTCGAT AAAGTTGGAC	1140
ATGACCAAGT GTTGGAGGTA AGAAGTAGGC AGATTAGGGT GGGCTTCTTT TAAATTATCA	1200
GCTAGCACGG AATAGACATG GTGTTCTAGC TCTTTATGGA GTTGACGGAG GAAGTAGTCA	1260
TTTTTGGAAT ATAGCAGACT GGTGATATGG TCTTGGTTTT TATGAAAATG GAGAAAGAGG	1320
TGGGCGAGGT AGTCCTCGGT TGAAATGGCT TGCTCTCTTT CAAAAGATG ATGGAAGAGG	1380
TAGCGGCAGA CTTGGTCCAG AAGAAGCTCC TTAATCTCAT AGTGACAGTA AAAGGTGGAT	1440
CGTCCCACAT CTGCGAGATC AATGATATCC TGAACAGTAG TGGCCTCGTA GCCCTTAGCA	1500
TTCAAAAGTT GTATAAAGC TTGATAGATG GCTTTTTTGG TTTTGCTGAT ACGGCGGTCA	1560
ATGTTAGTCA TATGGACACT TAAGGCAAAT TGTTTCAGAAC TGAATAAAGC TGACGTTTTG	1620
CTTCTATCCT TTCTTTGAGT TTTAGTGGAT AATGATAATG AACAAAGTGT TCATAAATCT	1680
ATTATAACAA AGGAATGAGA AATATGAAGG CAAAATATGC TGTTTGGGTG GCTTTTTTCT	1740
TAAATTTGAC TTATGCCATT GTTGAATTTA TTGCAGGTGG AGTATTTGGT TCTAGCGCTG	1800
TTCTTGCTGA CTCTGTGCAT GACTTGGGAG ATGCGATTGC AATTGGAATA TCAGCTTTTC	1860
TAGAAACAAT CTCCAATCGT GAAGAAGACA ATCAGTACAC CTTGGGCTAT AAGCGGTTTA	1920

619

GCCTGCTAGG AGCCTTGGTA ACAGCTGTGA TTCTCGTAAC GGGCTCTGTT CTAGTCATTT	1980
TGGAATAATGT CACGAAGATT TTGCATCCGC AACCAGTCAA TGATGAGGGG ATTCTCTGGT	2040
TAGGAATTAT TGCGATTACT ATCAATCTGT TAGCGAGTCT GGTGGTTGGT AAGGGAAAGA	2100
CAAGAATGA GTCTATTCTG AGTCTGCATT TTCTGGAAGA TACGCTAGGG TGGGTAGCTG	2160
TTATCCTGAT GCGGATTGTT CTTGATTTA CGGACTGGTA TATCCTAGAT CCTCTTTTGT	2220
CCCTTGTCAT TTCTTTCTTT ATTCTTTCAA AAGCCCTTCC ACGTTTTTGG TCTACACTCA	2280
AGATTTTCTT GGATGCTGTG CCAGAAGGTC TTGATATCAA GCAAGTAAAG AGTGGCCTGG	2340
AGCGATTGGA CAATGTGGCC AGCCTTAATC AGCTTAATCT CTGGACTATG GATGCTTTGG	2400
AAAAAATGC CATTGTCCAT GTTTGTCTAA AAGAAATGGA ACATATGGAA ACTTGTAAG	2460
AGTCTATCG AATTTTCTTA AAAGATTGTG GTTTTCAAAA TATTACCATT GAAATTGATG	2520
CTGACCTAGA AACTCACCAA ACCCATAAGC GAAAGGTGTG TGACTTGGAA CGGAGTTATG	2580
AGCATCAACA TTAGAAAAA GTGAAAAATA CTTGGGTACT ATCTTATTTG GAATAGAGTA	2640
ATTTCTTTAT TATTTAAATA TTTCAAAAAT TGGTAAGAGA AGAGCATGTG ATAACTCCA	2700
GATATATGAT TGTTAATGAT AAAAATTTT CGATTAGATA CAAAATGCTT GACTTGGAGT	2760
CAACTCAAAG TTATATAATA AGATAAGTGA GTTAGAATAG CGTGAATTCA GTGAATGAAA	2820
TGAGAGGAGG TTAGCGTGTG AATATTAAAT CTGCCAGTGA TTTGTTGGGA ATTCAGCGG	2880
ATACGATTTC GTATTATGAA CGGTTGGTC TTGTGCCACC GATTACTCGT ACTGCTACTG	2940
GGATTTCGTA TTTTCAAGAT CAGGATATCG AAGCGCTGGA ATTTATTAAG TGTTTTCGTT	3000
CGCGGGGTGT CTCTGTAGAT AGTTTAGTTG ACTATATGTC GCTCTACCAA AAGGGAGATG	3060
AAACGAGAGA GGAGAGGCTT GGTATTTTAG AAGAGGAAAA GCAAAAATTA GAGGAGCGCT	3120
TGTCTCAGCT ACAGACAGCT TTAATCGTT TAAATCTCAA AATTAAACTT TATAAGGAAG	3180
GAAAATTTTA AATGAAATCA GCAGTATATA CAAAGGCAGG TCAGGTTGGA CTTGCTAGCA	3240
TTGAACGTCC GCAAATAATA GAAGCGGATG ATGTGATTAT TCGTGTGGTT CGTGCCTGCG	3300
TTGTGGTTC AGATTTATGG AGGTACCGTA ATCCAGAAAC GAAAGCTGGA CACAAAAATA	3360
GTGGACACGA AGCGATTGGG ATTGTTGAAG AAGCTGGGGA AGCCATTACG ACGGTGAAAG	3420
CAGGTGATTT TGTGATTGTC CCTTTTACAC ATGGATGTGG TGAGTGTGAT GCCTGTCTTG	3480
CTGGATTTGA CGTTCTTGC GACAATCATA TTGGCAATAA TTTGGGGGGT GATTTTCAGG	3540
CAGAATATAT TCGCTTCCAC TATGCAAACT GGGCGCTGGT TAAAATCCCT GGTCAACCTT	3600
CTGACTATAC AGAAGGGATG CTCAAGTCCC TTTTGACTCT TGCAGATGTC ATGCCGACAG	3660

620

GCTATCATGC	GGCGCGTGTT	GCAAATGTTT	AAAAAGGGGA	CAAGGTTGTT	GTTATCGGTG	3720
ATGGGGCTGT	TGGTCAATGT	GCTGTCATCG	CGGCTAAGAT	GCGTGGAGCA	TCACAAATTA	3780
TCCTTATGAG	CCGTCAATGA	GACCGTCAAA	AGATGGCTAT	GGAGTCAGGT	GCGACAgcTG	3840
TTGTTGCAGA	ACGTGGTCAA	GAAGGAATTA	CCAAGGTGCG	TGAAATCCTC	GGTGGAGGAG	3900
CAGATGCAGC	ACTTGAATGT	GTTGGTACGG	AGGCTGCTAT	AGAACAGGCG	CTAGGTGTTT	3960
TTCATAATGG	AGGGCGTATG	GGCTTTGTAG	GAGTCCCA	CTATAATAAT	CGTGTCTCTG	4020
GTTCGACATT	TATGCAAAAT	ATCTCTGTAG	CAGGTGGGGC	AGCTTCTGCT	ACAACATACG	4080
ATAAGCAATT	TTTACTAAAA	GCCGTCCTTG	ATGGTGATAT	CAATCCAGGT	CGCGTCTTTA	4140
CTTCAAGTTA	TAAACTGGAA	GATATCGACC	AAGCCTATAA	AGATATGGAT	GAACGTAAGA	4200
CAATTAAGTC	TATGATTGTA	ATCGAATAAA	AAACGAATAG	GAGTTTGTAG	ACTCTATTTC	4260
TTTTTTATGT	TATCCTATTC	TTGATTTAGG	GTACTTTCTC	TTAATGTCAG	TCTGGTTCCC	4320
AGCATGGTCA	GGCTAGGGAT	TTCCGACCG	TGGAGGACTT	CCTTGTTAAG	AATATCCATA	4380
CCTGCTCGGC	CCATTTCTTC	AGTATAAACT	GTAATACTAG	AGAGGGGAGG	ATAGACCTGT	4440
TTGGTCAGAC	TAGTGTCTGT	AAAGGAAATG	AGGCTGACGC	GATCTGGCAG	GCTGATTCCA	4500
GCTTCTTGGA	GGGCACGGAG	GGCACCGATA	GCTAAACTAT	CGCTGGCTGC	GAAAAATGCT	4560
GGCGGAAGTT	GGTCTCCCAA	GCTCTGAATG	GCCTCCTTCA	TTAAGTCATA	GCCAGACTGG	4620
GCAGTAAATC	TTCTTGAAAT	GACCACTTCA	TCATGATAGA	TTCCCTCGC	TTGACTATAG	4680
TTTTTTGAAGT	TTTCTAGACG	CTTGTCTCTG	ATGATTTCTT	CTTGGTCTGT	TGTTTCTTCA	4740
AGGCCTGTGA	GAATCCCGAT	ACGGTCCATT	CCTTGACTGA	GGAAATAATC	GACAACCTGT	4800
TTCATAGCAG	TGTAAAAATC	CGTGATAATA	CAGGTATGTC	CCAGGGAAAG	TGTATCGCTG	4860
TCTAGAAATA	CAAGAGGCTT	TTGGTATTCT	TCAAAGGCAG	AAATCTGAGC	TCGACTAAAC	4920
TTTCCGATGC	AGAGAATCCC	AATCACTTCC	TCGCTTAGGG	TAAAAGGGTG	GTCATTAAAA	4980
TAGCGCAAGA	TATCATAGTC	CAACTCTTGG	GCTCTTTTTT	CTATTCCTAG	GCGAATCTGG	5040
TAGTAGTAGA	GGTCGTCCAG	CTCCCTTGT	TCGCTGACCC	ATTGGATAAT	GGCAATCTTT	5100
TGCTTGGGTT	TGTGGGACTC	GCCTGTCTTG	AGGTGCTTGG	TGTAGCCCAG	CTCTTCAGCA	5160
ACGGTTAAAA	TACGGTGTCT	GTTTCTTCT	GTAACAGATA	GGCTCTGGTC	GCGGTTGAGG	5220
ACGCGGGATA	CGGTCCGGAT	AGAGACAGAG	GCTAGCTGTG	CAATGTCTTT	TAAGGTAGCC	5280
ATAAATCCTC	CTTGATTAGG	TTAGTATATC	ATGTTTTTCT	TCTTTTACT	GATATTTTAC	5340
TAAAAATTTA	GTAAAAAGGA	TTGACCTTGG	AAAATTCCTT	GGATATAATA	GAAAGAAAAC	5400
GATTACACGT	TAAGATGGCT	TAACGGACAG	TCAAAGGAGA	ATTCATATGG	CACAACATCT	5460

621

TACTACTGAA GCCCTTCGCA AAGACTTTCT TGCTGTTTTT GGTCAAGAAG CAGATCAAAC	5520
CTTCTTTTCA CCAGGCCGCA TTAATTTGAT TGGTGAACAC ACAGACTACA ACGGTGGGCA	5580
CGTTTTTCCT GCTGCTATTT CCTTGGGAAC TTACGGTGCA GCTCGTAAGC GTGACGACCA	5640
AGTCTTGCGT TTCTACTCAG CTAACTTTGA GGACAAGGCG ATTATCGAAG TGCCTCTCGC	5700
TGACCTCAAG TTTGAAAAAG AGCACAACTG GACCAATTAT CCAAAAGGTG TCCTTCATTT	5760
CTTGCAAGAA GCTGGGCACG TGATTGACAA AGGTTTGTAT TTTTATGTTT ATGGAAATAT	5820
TCCAAATGGT GCTGGCTTGT CTTCTTCTGC ATCCTTGGA CTCTTGACAG GAGTCGTGGC	5880
TGAGCATCTC TTTGATTAA AATTAGAGCG TCTCGATTG GTTAAAATCG GCAAACAAAC	5940
AGAAAACAAC TTTATCGGAG TAAACTCTGG CATTATGGAC CAGTTTGCTA TTGGTATGGG	6000
GGCAGACCAA CGTGCTATTT ACCTAGATAC TAATACTTTA GAATACGACT TGGTGCCACT	6060
TGATTTGAAG GACAAATGTCG TTGTTATCAT GAACACCAAC AAACGCCGTG AATTGGCGGA	6120
CTCTAAATAC AATGAACGTC GTGCTGAGTG TGA AAAAGCA GTGGAAGAAT TGCAAGTTTC	6180
CTTGGAATTT CAGACTCTGG GTGAATTGGA CGAGTGGGCC GTTGACCAAT ATAGCTATCT	6240
GATTAAAGAT GAAAATCGTT TGAAACGTGC TCGCCATGCT GTGCTTGAAA ACCAACGTAC	6300
CCTCAAAGCT CAAGTAGCAC TCCAAGCAGG AGATTTGGAA ACATTTGGAC GCTTGATGAA	6360
TGCGTCACAC GTTCTCTGAG CATGATGATTA TGAAGTAACT GGTTTGGAAT TGGATACCTT	6420
TGTTACACACA GCTTGGGCAC AAGAAGGAGT TCTCGGTGCT CGTATGACAG GGGCTGGTTT	6480
TGGTGGCTGT GCcATTGCCT TGGTTCAAAA AGATACTGTT GAGGCCTTTA AGGAAGCTGT	6540
AGGCAAACAC TACGAGGAAG TAGTTGGATA CGCTCCAAGC TTCTATATCG CTGAAGTTGC	6600
AGGTGGCACT CGCGTCCTTG ACTAGTCAAA AGGAGGCTCT ATAGTGACCT TAGTAAATAA	6660
ATTTGTAACA CATGTCAATT CTGAAAGCTC ATTTGAGGAA ATGGATCGAA TCTATCTGAC	6720
CAATCGTGT TTGGCAGCAG TGGGAGAAGG TGTTTTGGAA GTTGAGACCA ATCTGGATAA	6780
ATTGATTGAC CTCAAGGACC AGCTGGTTGA AGAAGCCGTT CGATTAGAGA CGATTGAGGA	6840
TAGTCAGACT GCGCGTGAAA TCCTTGGTGC TGAACGTATG GATTTGGTGA CTCCTTGTC	6900
AAGTCAGGTC AATCGTGATT TTTGGGCAAC CTACGCCAC TCTCCAGAAC AAGCGATAGA	6960
GGATTTTAC CAACTCAGTC AGAAAAATGA CTACATCAAA CTCAAGGCCA TTGCTAGAAA	7020
TATCGCTTAT CGTGTTCCAT CTGACTACGG AGAACTTGAA ATTACCATCA ATCTCTCTAA	7080
GCCTGAAAAA GATCCCAAAG AGATTGTGGC AGCCAAGTTG GTGCAAGCTA GTAATTATCC	7140
TCAGTGTGAG CTTTGTCTAG AGAATGAGGG CTACCATGGT CGAGTTAACC ACCCAGCTCG	7200

622

TAGCAATCAC CGTATTATCC GTTTTGAAAT GGTGGTCAG GAATGGGGTT TCCAGTATTC	7260
GCCCTATGCT TACTTTAATG AGCATTGTAT CTTTTTAGAT GGCCAGCATC GTCCCATGGC	7320
CATTAGTCGT CAGAGTTTGT AACGTCTGTT GGCTATCGTA GACCAGTTTC CAGGATATTT	7380
TGCTGGATCT AATGCCGACC TGCCGATTGT GGGGGGCTCT ATTCTAACTC ATGATCATTA	7440
TCAGGGAGGC CGTCACGTAT TTCCTATGGA ATTGCTCCC TTGCAAAGG CCTTCCGATT	7500
TGCTGGTTT GAGCAGGTCA AGGCTGGAAT TGTCAAGTGG CCCATGCTG TCCTACGTTT	7560
GACTTCGGAT TCCAAAGAGG ATTTGATCAA TTTGGCTGAT AAGATTTTGC AGGAATGGCG	7620
CCAGTATTCA GATCCTGCAG TGCAGATTTT GGCAGAGACA GACAGGACAC CGCATCACAC	7680
TATCACACCC ATTGCCCACA AACGCGATGG ACAGTTTGAG TTGGACTTGG TCTTGCGAGA	7740
CAATCAGACT TCAGCAGAGT ATCCTGATGG TATCTATCAT CCCCACAAGG ATGTCCAACA	7800
TATCAAGAAG GAAATATCG GCTTGATTGA GGTATGGGC TTGGCAATCT TGCCACCACG	7860
TCTGAAAGAA GAAGTGGAGC AAGTCGCTAG CTATCTTGTA GGAGAAGCTG TTACAGTTGC	7920
CGATTATCAT CAGGAGTGGG CAGACCAACT CAAATCCCAA CATCCAGACT AACGGATAAA	7980
GAAAAGCCC TTGCAATCGT CAAGGACTCT GTGGGTGCTA TCTTTGCGCG TGTACTTGAG	8040
GATGCAGGAG TCTACAAGCA GACAGAACA GGGCAGACAG CCTTTATGCG CTTTGTGGAA	8100
CAGGTCGGAA TTTTACTAGA CTAGGAGCTT TCTCGG	8136

(2) INFORMATION FOR SEQ ID NO: 76:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10011 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 76:

CCCATAGTGA AGAGTGGCCA TAAGAAGGTC TTCTAGGCTT AATTTAGGTT TTCGTCCACC	60
TTTTCGCTGT TTAAGTTGAT AAGCTGTTTT TAACACAGCT GAACATCTCT TCAAAAGTCG	120
TGCGCTGAAC ACCAACAAGA CATTTAAATC GTGTATCAGT TAGTTGTTTA CTTGCTTCAT	180
CATTCATAGA ACTACTATAC CATGTTTTGT TTCGCAGGAA GTCTAATATT GTCAAATACT	240
GGAACGCTCA TTGCTGGGAT ACGGAATAAG ATTGGCCCAG CTTGATAAC TGGGATACCT	300
GGTTCAAAAC CAAGGTCTGT TGCAGCGATT GGTGTAAAGA TATCGTAACC TTTCATAAGG	360
TCTTCGTTTA CATCTTTCAC CATAACTGCA TCACAGTGAA CATCGTAACC ACGGTTTGAA	420
AGTTCTTCTT CTAGAGCACT TTTAATTGG TGAATTGAGT TAACACCTGC ACCGCAGGCA	480

623

GCAAGAATTT TAATCATTTG GATTTCTCC GATTTTATTT TTTAATAGAC AAGATTAAGC	540
GGTTGCTTCA GCAATGTAAG CATAAAGGGC TTCTGGTTCA GAAATTTTG ATAGGTCTTC	600
AAGATGACCA TTCTCTGTGA AGAAGTCCAT TAACTGAGCA AGAATGTTTCG TTTGACTTGA	660
ACTTGAATTA TTGATGATAA AGAAGAGCAA GGATACTTCT ACTTCCTTAC CTGGCGCAAT	720
CATATTATGG AAAGTCACCG GTTCTCTAA TCGAACAACC ACCACTTTCT CAGCTAGATT	780
ATGAACAATA TCTGTGTGAG GAATCATTAC ATTTGCAAGT CCTTTCCTAG AAATTCATA	840
TATAAACCAG TTGGAATGA CTTTCACGC GTGATCAAGG CTTACGATA AGTTGGAGTG	900
ACAATTTCTC GTTCTTCAA CAAGCTTGCT ACCTGATCAA AAAGTTATTC TTGATTATCC	960
GCTTCTAAGC AAAACACAAG GTTTTGTCA AAGAAATAAT CTAATACCAT AAGGTTTCC	1020
CTTCTTTCCA TTAACCTTAT GCTATAAGTA TAACACTATA TGAAATCGTT GTTAATTACT	1080
TTCTATTCTT TTTTGTCTCT TTTTATAT TTTTGTGTTG TTTATAGTTT GTTATATAAA	1140
AATAACACA CAAACAAATA CTCCAAGCAT TTTTCTGTTC TAATACTCAA TGAAATCAA	1200
AGAGCAAAC AGGAAGCTAG CCGCAGTTGT TCAAAACACA GTTTGAGGT TGTAGATGAA	1260
ACTGACGAAG TCACCTAAAA CATGGTTTGT AGGTTGTAGA TGAACTGAC GAAGCAACAG	1320
CCATACATAC GGTAAGGCGA CGCTGACGTC GTTTGAAGAG ATTTTCGAAG AGTATAAAAA	1380
CTAAAAAGC AGACCATCTA AGCCTGCTTT ACTATTGATT CTTATATAAA TTCTCTGTGA	1440
ACAAGGAAAG GCATTTCTGA TAACCTATTC TTCATCCATA CTCAGACGC TGAGGAAGGC	1500
TTCTTGCGGA ACTTCAACTG ATCCGATGGA TTTCATGCGT TTCTTACCAG CTTTTGTGTT	1560
TTCAAGGAGT TTACGCTTAC GAGAAACGTC ACCACCATAA CATTTAGCAA GTACGTTCTT	1620
ACGAAGGGCC TTGATATCAG TACGAGCGAC AATCTTGTGT CCAATAGCCG CTGGATTGG	1680
AACTTCAAAT TGTGGCGAG GGATGATTTT CTTGAGTTTA TCAACGATGA GTTTCCACG	1740
TTCTAGGCA AAGTCCTTGT GAACGATAAA GCTGAGGCA TCCACCTTAT CTCCATTGAG	1800
AAGAATATCC ATTTTACCA GCTTAGATGG GCGATATTCT GACAATTCGT AGTCAAAGCT	1860
TGCATAACCA CGTGTCGAAG ACTTAAGTTT ATCAAAGAAG TCAAAGACAA TTTCAGCAAG	1920
AGGAATTGA TAGATAACAT TGACACGGTT ATCATCAATA TAGTCCATAG TCACAAAGTC	1980
CCCACGCTTA CGCTGAGCTA GCTCCATTAC TGCTCCGACG AACTCCTGTG GTACCATGAT	2040
TTGCGCCTTG ACATAAGGCT CTTCAATGGT CGCAATCTTA GTTGGGTCTG GAAACTCAGA	2100
TGGGTTAGAC ACATCCATAG ACTCACCGTC GGTCAAATTA ACTTTGTAAA TAACAGACGG	2160
AGCTGTCTATG ATGAGGTCAA TATTGAACTC ACGCTCTAAA CGTTCCTGGA TAACATCCAT	2220

624

ATGGAGAAGT CCAAGAAATC CACAACGGAA ACCAAATCCA AGTGCCTGAG ATGTTTCTGG	2280
TTCAAACCTGA AGACTAGCAT CATTTCAGTTG CAATTTTTCa AGcGCTTCAC GCAGGTCATT	2340
GTACTTGTTT GATTTCGATTG GGTAGAGACC CGCAAAGACC ATAGGATTCA TCTGCTTATA	2400
ACCATGTAAT GGTCTGCCC GAGGATTGGT TGCCAAGGTA ACGGTATCAC CCACACGAGT	2460
ATCCTGAACC GTCTTGATAG ACGCCGCAAT GTAACCAACA TCACCAGTCG CAAGGAAATC	2520
ACGACCAACC GCTTTTGGTG TAAAAATACC GACTTCGGCC ACATCAAAGG TCTTACTATT	2580
GCTCATGAGC TGAATCTTAT CACCAGGTTT GACCACTCCG TCCATGACAC GCATTGGAG	2640
GATAACCCCA CGGTAAGCAT CGTAAACAGA GTCGAAAATC AAGGCCTTAA GTGGCGCCGT	2700
CACATCACCC GTTGGTGCTG GTACTTTTTC TACAATTTGC TCGAGGATTT CTTCAATCCC	2760
AATACCAGCC TTGGCAGAAG CCAAACTGC TTCACTGGCA TCCAAACCAA TCACATCTTC	2820
AATCTCTGTA CGCACGCGCT CCGGATCTGC AGCCGGCAGG TCAATTTTAT TAATGATAGG	2880
CATGATTTC AAATCATTAT CCAAAGCCAG ATAAACGTTG GCAAGAGTTT GAGCCTCAAT	2940
TCCTTGAGCC GCATCGACCA CCAAATAGC ACCCTCACAG GCAGCTAGCG AACGTGAAAC	3000
TTCATAGGTA AAGTCAACGT GCCCTGGTGT GTCAATCAAG TGGAAAATAT AAGTTCCCC	3060
ATCTTTTGCA GTGTAATTCA ACTCGATGGC ATTCAACTTA ATAGTAATTC CACGTTCCCG	3120
CTCTAGTCC ATGCTATCCA AAAGCTGGC CTGCATTTCa CGACTTGAA CCGTCTCTGT	3180
TTTTTCCAA ATGCGGTCTG CTAGAGTTGA TTTTCCGTGG TCAATATGGG CGATAATAGA	3240
GAAGTTACGG ATCTTCTCCT GTCGTTTTTT CAATTCTTCT AAGTTCATGA TTCTCTTCCT	3300
TTCAGGTAT CTATTTATTA TAAATTGTTT TTGATATTTT GACAAGACCA TACCCTGCTA	3360
GGAGTACTAA TCTTCAGCGA CAAAGCCGTC ATTTTCGATA AAGTGGTGTT CTGTCATTCC	3420
TTGGTCTGTA AAGACAATCC CGTGAAGGAC ACCACCATAA ACAGCTCCTC CATCCATTCC	3480
AATCTTGCCA TCTTCTGTAG TCCAAAGCTC AGATGTACCG CGTCTTGCT GTAACAAACC	3540
ATAGACCGGT GTATGACCGA AGACAATGGT TTTTCCAGTA TGATTTTCAG CTCCGTGGAA	3600
TGGTTTCTA AGCCATACTT TTTTATAATC TGTGTTTTCa TGCCAGTCGT CCAAGGTCAA	3660
ATCAATACCT GCGTGAACAA AGATATACTT GTCTGTCTCT ACTACAAATG GCATTTGACG	3720
AATGAATTCG ACCAAGTCTG CCGCTTCAGC GgCAACCCGC TTGGCATCTT CTACTIONATC	3780
AACTGGTGCA TCCAAGGGAC GACCTAGGAT AGAGTTAATG GTTGTATCTC CACCATTGCG	3840
ACTATAATGG TCATAACTTT CTCTGGGTC ATCTAGCCAA GTCAAAAACA TATACTCGTG	3900
GTTTCCGGAC AAACAGATAG CCCCTTGATT GTCCACCAAG TCCTTGACCA TTTCAAGAAC	3960
ACGGTGACTA TCCTCACCTC TGTCATCAA ATCACCTAGA AAGAGCAACT GGGGCTGACC	4020

625

ATCCCAGGTT TTGAGAAGGT CTTCCAGCAT CCCAGCTTTT CCGTGAACAT CTCCAATTAC	4080
ATAATAATCT GTCATCTTAT TTCTCCCTGT TTCTCAACAA TTCTCTTGCT TGCCTCAGGG	4140
CTGCTTCTGT CACATCATCA CCTGCCAACA TCTTGGCAAC TTCCTCCACT CGCTCTTCGA	4200
CCGTCAAGAG ACGAACAGTC GAAACCGTTG AATGGTCATT ACTAATCTTC TCAATAAAGA	4260
ATTGATAATC TGCAATCGCA ATTACTTG TGCAATGGGA GATAGCCAAA ACCTGACCAT	4320
GCTGACCAAT TTTATGAATT TTCTGAGCAA TAGCTTGAGC AACACGACCT GAAACTCCCG	4380
TATCCACCTC ATCAAAGACA ATGCTAGTCT TGCCTTCTTT ACGTGAAAAG GCAGACTTAA	4440
TGGCTAACAT GAGACGAGAT AATTCCCTC CAGAAGCAAC CTTAACCAAG GGTTTAAAGT	4500
CTTCTCCAGG GTTGGTTGAA ATATAAACT CAACCATTTT ATTTCCCTCA CGACTGAATT	4560
TTCCCTTACT AAAACGAACC TGAACTGGG CTTTTTCCAT ATAAAGATCT TGCAGTTCTT	4620
GTTTAATCTC AGCTTCGAGT TGCTGAGCCA AATTATGACG AGCAGAAGCA AGTTGACCTG	4680
CCAAATTGAC AAGATTGACT TCCAATTCT TAAGCTCTGC TTCCATGTCC TCAGACGAAA	4740
GATTATTGCC TGTCAAGAGA TTGTATTCTT CCGTAATCTT GGCAAAATAA AGCAAAACAT	4800
CATCAACAGT CCCACCATAC TTACGAGTAA TAGTATGAAG GAGGTCCAAA CGATTCTCAA	4860
CCTGCATCAG GCGATTGCCA TCAAAATCAA GGTCTCAAT GATAGCTTCC AAACGTTTGC	4920
TAATGTCTTC TAAAACATAG TAGGTCTCAG ACAGATAGCT TGAAATTTCA CGGTATTCAG	4980
GATCATACTC TTCGACACTT TCCATGTCAT TCATAGCTGA ACGAACATTG GCCAGACTTG	5040
AAAAATCTTC ATTGTCCAAC ATACTGTAGG CATTGGTCAG TGTATCCGCA ATATTTTGT	5100
GGTTGAGGAG TTTATCTCGC TCTTGATTGA GAGCCAAGTC TTCTCCAGCC TGCAAGTTTG	5160
CTGCCTCAAT CTCTGCCATT TGAAATCCA ACATTTGAT ACCTGCCTTG TGTCTCTGTT	5220
GGTTTTCTT GACTTCCAGA ACCTGCTTGC GCATTTTCCG ATAGGCATCA AACTCGTTT	5280
GATAGGTTTC TTTCAAGTCC CAAAAGCGG CATCACCAA TTCATCCAAC ATCTGGATAT	5340
GCAGTTGGGG ACGCATTAAC TCCTCATGGT CATGCTGACC ATGAATATCT ACAAGATGTT	5400
GCCCAATAGC TCGCAAAACA GACAGATTAA CCATCTGACC ATTTACACGG CTGATACTAC	5460
GACCATTTTG CAAGATTTCC CGACGGATGA TAATTTCATC ACCTAATTCT AAACCTTGCT	5520
CATCAAAAAT TTCCTGTAAA AGACGACTAT TCTCAACTGA GAAAAGCCCC TCAATCTCTG	5580
CCTTTGGTGC ACCATGACGA ATAACATCTG TCGTCGCACG AGCTCCCAAC ATCATATTCA	5640
TGGCATCAAT GATAATCGAC TTCCCTGCAC CCGTTTCACC AGTCAGGACA GTCATCCCCT	5700
TTTCAAAATT GAGGGAAATA GCCTCAATAA TGGCAAAGTT TTTTATCGAA ATTTCAAGTA	5760

626

ACATATAGAC CTACCAATTT TTTACTTGTT CAAAGATTTC CTCTGCTAGA CTTCACCTTC	5820
TGGCAATGAC TAAATCGAG CTATCATCAG TCAAACAGCT AAAAATCTTG TCTGCAAAAG	5880
TCTCGATTAA CTGAGCTTTT ACAAAGCCG TATTTCCTGG AATAACTTGG AGATTGATCA	5940
TCTTATCCAT CAATTCAGCC GATTTCGATAT TGTCTTCAGC CAGTTGCAGA CTTTTTACGA	6000
TTGATTTTGG CAATTCGTAG ACATAGGTGT TGTCTCTCAA AGGAATTTTG ACAATACCTA	6060
ACTCTTTGAT ATCTCGGGAT ACCGTCGCCT GAGTGGCAGT GATACCTGCT TCTTTCAAAT	6120
GTTCTACAAT TTCTTCTTGC GTGCCGATTT GATAATCTGT CACCAATCTT CTAATTTTTT	6180
CAAGTCTCTC TTTTTTATTC ATTTTAAAT TGACTATGCG CCCTCTCTAC TGCTTCTTTA	6240
ATCTCAGCAA GAATCTGATT GCTTGCTGAC TTTTCTTTTT TCAAATACGC TAAAAATCA	6300
ATATTTCCAT GTCCACCTTG GATGGGAGAA AAGTCCAAGC CAAGGACTGA AAAACCTACC	6360
TCTACTGCCA TAGCTGTAC AGATTCAAGG ACATTCTGAT GAACCTTAGC ATCTCGAATA	6420
ATTCCATTTT TCCCAATCTG CTCACGTCCT GCCTCAAAC GAGGTTTGAC AAGTGCTACC	6480
ACCTGACCTT GATCAGCCAA GACACGGTGC AAGGCTGGCA AAATCAGACT AAGGGAAATG	6540
AAACTCATAT CAATACTGGC AAAGCTCGGC TCCTGCTCGA AATCAGTCTT TTCAGCATAG	6600
CGGAAATGTA ACTGCTCCAT GCTGACAACT CGTGGGTCTT GGCGTAATTT CCAAGCCAAC	6660
TGATTGGTAC CAACATCGAC TGCAAAGACC AACTTGGCAC TATTCTGTAG CATGACATCG	6720
GTAAACCTC CAGTAGAGGC CCCGATATCA ATCGTAGTCG CGCCATCCAC CGACAAATCA	6780
AAGACCTGCA AGGCCTTTTC CAGTTTCAAA CCACCACGGC TGACATACTT GAGTTTCTCC	6840
CCCTTGAGTT TTAATTCGGT GTCATCTGGA ATTTTCTCTC CTGGCTTGTC AAACCGTTCT	6900
CCATTAGGA CTGCTACGAC TAGGCCAGCC ATCACACCTC GCTTGGCCTG CTCTCTCGTT	6960
TCAAACAACC CCTGTTTATA AGCTAGTACA TCCACTCTTT CCTTAGCCAT TGATTCTCAA	7020
ACTTTCTACT ACACTTACAA TCGATTCTGT TTCAAAGGGA AGCTGCTGGG CAATTTCTTC	7080
TAATTTTTC TTAGCTTGAT CCAGGGTTTG GTTACAAAAG GCAATGGACT CTTCCAAGCC	7140
CAACAGGGCA GGATAGGTTG ATTTTCTGTC CTGCAGATCC TTTTGAGGTG TCTTGCCGAT	7200
TTCTCAAAA CTAGCTGTCA CATCCAGTAC ATCATCTCTG ACTTGAAAAG CAAGTCCAAT	7260
CAATTCACCC ACAGTTTTC GCTTCACCTG CATTTCAGGT GACAATTCAG CTATAATAGC	7320
TGCCGCTTGG AAGGGATAGG CTAGTAACTT CCCAGTCTTA TTGGCATGAA TAGTCTGAAG	7380
TTCTTCCAAA GACAAGTGCT GGTGTTTCGCC CTCCATATCC AAAACTTGCC CTGCTACCAT	7440
ACCCAGACTA CCTGAAGCAA GGGATAAGTT GGCAATCAAG TCCACCTTAA TCTGACTTGG	7500
CAAACTCTGCC TGCGCAATCA AGGCATATGA GTCTAAGAAT AAGGCATCTC CAGCCAAAAT	7560

627

GGCCATAGCT TCACCGAATT TCTTGTGATT GGTAAACCGC CCTCTTCGAT AATCGTCATC	7620
ATCCATAGCA GGAAGGTCAT CGTGAATCAA GCTCCCTGTA TGAATCATCT CTAAGGCAGT	7680
AGCTACCTGC GCGTGAGCAG GTTTGATGGT AACCTGCAAG GCTTCCAGAA CTTCTAACAA	7740
GAGAAAAGGC CGAATACGCT TGCCACCAGC ATGAATAGAA TAGAGAACAG ACTCCCGTAA	7800
ACTAGAGGCA AACTGCTGGT CTCCATAAAA ATCTTCCAAA GCCGACTCGA CAAGAGCTAA	7860
TTTTTCTTGC TTTTTCATT AAAATCACTT TCTGPTCCGT CTTCTTGCAT GACCTTGACC	7920
AAGGTCTTTT CAGCCTTGTC CAGCGTAGCT TGGAGCTCTT TTGACAAGAC CATGCCCTTT	7980
TGAAAGGCAG TAATCGCATC TTCCAGAGCA ATTTACCATT TTTCCAACT TTGACAATG	8040
GTTFCCAGTT CTGCTAGATT TTCTCAAAT TTCTTTTGT TTGACATCTT TAACCTCTAA	8100
TTCTACTTGA CCATCTCGCA TCAAAGCGT TACTTGGTCT TTTTCTTCA AACTCTCAAC	8160
CGAATCTACA ACGGACTCTT CTTTTTTGAC AATAGCATAA CCACGCGCCA CGATTGGCT	8220
AGTATCCAAC ATGAGCAAAG CTTCCGAAAG TCGCTTGGCC TCAGCAACCT TGGCGTCATA	8280
AACTAACGCC ATTTGGCTAC CTAAGAGCTT GTCCAACGT CCTAAACGGT CTTGATAGCG	8340
TTGGATTTTG GTAACAGGTG ATAATTGTAC TAATTGATGA GTTCTTGCTT GAACTAATTG	8400
TTTGTATCA GAAATCCGAG TTCGCAAAT TTGTTTCAA CGCAGTTGCA GTTGGTCCAA	8460
GCGTTGCAAA TAACCGTCAT ACAAGCGCTC AGGTTGTCTA AAGATAACAG ACTGACTGCA	8520
TTTTTTCAA GCCTCTTGT TCTTAGATAG AACATTTGCG ACTGCCGTTA CCATCCGTTT	8580
TTCTGTATTT TGCAAATGAG CTAATACATC CAACTTGGTC ACAGGTGTTG CCAGTTCAGC	8640
CGCGCTGTT GCGGTTGCAG CGCGTCGATC TGCCACAAAA TCTGCCAAGG TCACATCCGT	8700
CTCATGCCCC AACTAGAGA TAACTGGCAA ACGAGATTCA AAAATAGCTC GTACCACAAT	8760
TTCTTCGTTA AAGGCCGAGA GATCCTCAAT AGAACCACCT CCACGACCAA TAATGAGCAA	8820
ATCCAAATCG TCCCGTTGAT TAGCAGCGCG AATATTTCTA GCAATTTCTT CCGCAGCCCC	8880
TTCACCTTGA ACCTTGGTCG GATAAAGAAG GATGTCAACA CCTGGGAATC GCCTGCTGAC	8940
GGTCGTGATA ATATCTCGAA TAACGGCTCC ACTACGGCTG GTTACTACAC CAATTCTCTT	9000
AGAAAAATGG GGCAGAGCTT GCTTGAAGCG TTCTTGAAAC AGGCCTTCTT CTGTCAATTT	9060
TTTCTTAAGT TGTTCAAAT GAATCGCAAG CGCCCCAACC CCATCAGGCT CAGCTTTTTC	9120
AATGATGATG GAGTAGCTAC CACTTGGTTC ATAGACCTGT ACACGCCCAA TCACATTGAT	9180
CTTCATTCCT TCTTCCAGGT CAAACCTTAA TTTCTGATAA ATCCCAGACC AGATGGTCGC	9240
TTGAATAACT GCATGGTCAT CCTTTAGGGA GAAATATTGG TGAGTAGGTC GTTTACGAAA	9300

628

GTTGGAACT TGACCAGTTA AATAGACCCG TTCCAAGTAT GGGTCTTTAT CGAATTTTCAT	9360
TTTCAGATAC TTGGTCAAAG TTGTTACCGA TAAATACTTT TCCATCTCCA CCTACTATTC	9420
ATTTACTTGC TCTTTCATGG GTATTATTAT ACCAAAAATA TGCCTAAAAA TCTCCATTTA	9480
TGTACCATTA TGAGGGAAAA ATAGAAAAAG GAGGCAAGGC CTCCACATGT GATTATTTGC	9540
TGTTTCGAGC TTCTTCCAAA ATCTTTGCAA TCTTGGTCTG CAACAGGTCG ATAGCCACGG	9600
TATTGCTAAC CCCTTCAGGA ATGACGATAT CAGCATAACG CTTAGTTGAC TCGATAAACT	9660
GGTGGTACAT TGGTTTGACC ACACCTAAGT ACTGGTTAAT AACGCTATCA AGGCTACGGC	9720
CACGCTCCTC CATATCACGC TTGATACGAC GAATAATGCG CACATCGTCA TCCGTATCCA	9780
CAAAAATCTT GATATCCATC AAATCGCGCA GACGCTTGT CTTCAAGACC AAAATACCCT	9840
CAACGATAAA GACATCTTGA GGTTCCTGAC GATAGGTCTT GCTACTCCGT GTATGCTCTG	9900
TATAGTCGTA GGTGGGATG TCCACCGGAC GCCCTGCCAA CAATTCCTTA ATCTGCTCGA	9960
TCATCAAGTC TGTATCAAAG GCAAAAGGAT GGTATAGTT GGTTTTGACG G	10011

(2) INFORMATION FOR SEQ ID NO: 77:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5365 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 77:

CGTGTGGTCT TAAAAATAGA AGACAAAGAA CAACTGTTG GAGGCTTTGT CCTGCAGGC	60
TCAGCCCAAG AAAAAACCA AACAGCTCAA GTTGTTGGCTA CTGGACAAGG TGTTCGTACC	120
TTGAACGGTG ACTTGGTTGC TCCAAGTGT AAACTGGAG ATCGTGTCTT AGTTGAAGCC	180
CACGCAGGTC TTGATGTCAA AGATGGCGAT GAAAAGTACA TCATCGTAGG CGAcTAACAT	240
TTTGCCAATC ATTGAGGAAT AGAAGGAGAA AGTAAGTATG TCAAAAGAAA TTAAATTTTC	300
ATCAGATGCC CGTTCAGCCA TGGTTCGTGG TGTCGATATC CTTGCAGACA CTGTTAAAGT	360
AACCTPTGGA CAAAAGGTC GCAATGTCGT TCTTGAAAAG TCATTGGTT CACCCTTGAT	420
TACCAATGAC GGTGTGACCA TTGCCAAGA AATCGAATTG GAAGACCATT TTGAAAATAT	480
GGGTGCTAAG TTAGTATCAG AAGTAGCTTC TAAAACCAAT GATATCGCAG GTGACGGAAC	540
TACGACTGCA ACAGTCTTGA CCCAAGCTAT CGTCCGTGAA GGAATCAAAA ACGTCACAGC	600
AGGTGCAAAT CCAATCGGTA TTCGTCGTGG GATTGAAACA GCAGTTGCCG CAGCAGTTGA	660
AGCTTTGAAA AACAACGCCA TCCCTGTTGC CAATAAGAA GCTATCGCTC AAGTTGCAGC	720

629

CGTATCTTCT CGTTCTGAAA AAGTTGGTGA GTACATCTCT GAAGCAATGG AAAAAGTTGG	780
CAAAGACGGT GTCATCACCA TCGAAGAGTC ACGTGGTATG GAAACAGAGC TTGAAGTCGT	840
AGAAGGAATG CAGTTTGACC GTGGTTACCT TTCACAGTAC ATGGTGACAG ATAGCGAAAA	900
AATGGTGGCT GACCTTGAAA ATCCGTACAT TTTGATTACA GACAAGAAAA TTTCCAATAT	960
CCAAGAAATC TTGCCACTTT TGGAAAGCAT TCTCCAAAGC AATCGTCCAC TCTTGATTAT	1020
TGCGGATGAT GTGGATGGCG AGGCTCTTCC AACTCTTGT TTGAACAAGA TTCGTGGAAC	1080
CTTCAACGTA GTAGCAGTCA AGGCACCTGG TTTTGGTGAC CGTCGCAAAG CCATGCTTGA	1140
AGATATCGCC ATCTTAACAG GCGGAACAGT TATCACAGAA GACCTTGGTC TTGAGTTGAA	1200
AGATCGCACA ATTGAAGCTC TTGGTCAAGC AGCGAGAGTG ACCGTGGACA AAGATAGCAC	1260
GGTTATTGTA GAAGGTGCAG GAAATCCTGA AGCGATTCT CACCGTGTG CGGTTATCAA	1320
GTCTCAAATC GAAACTACAA CTTCTGAATT TGACCGTGAA AAATTGCAAG AACGCTTGGC	1380
CAAATTGTCA GGTGGTGTAG CGGTTATTAA GGTGGAGCC GCAACTGAAA CTGAGTTGAA	1440
AGAAATGAAA CTCCGCATTG AAGATGCCCT CAACGCTACT CGTGCAGCTG TTGAAGAAGG	1500
TATTGTTGCA GGTGGTGGAA CAGCTCTTGC CAATGTGATT CCAGCTGTTG CTACCTTGA	1560
ATTGACAGGA GATGAAGCAA CAGGACGTAA TATTGTTCTC CGTGCTTTGG AAGAACCCGT	1620
TCGTCAAATT GCTCACAATG CAGGATTTGA AGGATCTATC GTTATCGATC GTTTGAAAAA	1680
TGCTGAGCTT GGTATAGGAT TTAACGCAGC AACTGGCGAG TGGGTTAACA TGATTGATCA	1740
AGGTATCATT GATCCAGTTA AAGTGAGTCG TTCAGCCCTA CAAAATGCAG CATCTGTAGC	1800
CAGCTTGATT TTGACAACAG AAGCAGTCGT AGCCAATAAA CCAGAACCAG TAGCCCCAGC	1860
TCCAGCAATG GATCCAAGCA TGATGGGCGG GATGATGTAA GCTTCTATA GAAACAACCT	1920
TATAAAAAAC ACAAAGGAG GGAATGACTA ACCCTTCTTT TTATAGGCTC TTTGTCAACT	1980
GTAGTGGGTT GAAGTCAGCT AAGCTCGAGA AAGGACAAAT TTCGTCCTTT CTTTTTTGAT	2040
GTTCAAAGCG ATAAAAATCC GTTTTTTGAA GTTTTCAAAG TTTCGAAAAC CAAAGGCATT	2100
GCGCTTGATA AGTTTGATGA GATTATTGGT CGCTTCCGGT TTGGCGTTAG AATAGTGTAG	2160
TTGAAGGGCG TTGATAATCT TTTCTTTATC TTTGAGGAAG GTTTTAAAGA CAGTCTGAAA	2220
AATAGGATGA ACTTGCTTAA GATTGTCCTC AATAAGTCCG AAAAATTCT CCGGTTCTTT	2280
ATTCTGAAAG TGAAACAGCA AGAGTTGATA GAGCTGATAG TGATGTTTCA AGTCTTGTGA	2340
ATAGCTCAAA AGCTTGCTA AAATCTCTTT ATTGGTTAAA TGCATACGAA AAGTAGGACG	2400
ATAAAATCGC TTATCACTCA GTTTACGGCT ATCCTGTTGT ATGAGCTTCC AGTAGCGCTT	2460

630

GATAGCCTTG TATTCATGGG ATTTTCGATC CAATTGGTTC ATAATTTGAA CACGCACACG	2520
ACTCATAGCA CGGCTAAGAT GTTGTACAAT GTGAAAGCGA TCCAACACGA TTTTAGCATT	2580
CGGGAGTGAA ACAGTCTGGG AGACTGTTTC AGCCTGAGCC TAGAAATTTG AAAGCGAAGC	2640
TGTTTAGCCA AGTCATAGTA AGGACTAAAC ATATCCATCG TAATGATTTT CACTTGACAA	2700
CGAACGGCTC TATCGTAGCG AAGAAAGTGA TTTCGGATGA CAGCTTGTGT TCTGCCTTCA	2760
AGAACAGTGA TAATATTAAG ATTATCAAAA TCTTGCGCAA TGAAACTCAT CTTTCCCTTA	2820
GTGAAGGCAT ACTCATCCCA AGACATAATC TTTGGAAGCC GAGAAAAATC ATGCTCAAAG	2880
TGAAAGTCAT TGAGCTTGGG AATGACAGTT GAAGTTGAAA TGGCCAGCTG ATGGGCAATA	2940
TCAGTCATAG AAATTTTTC AATTAACTTT TGAGCAATCT TTTGGTTGAT GATACGAGGG	3000
ATTTGGTGAT TTTTCTTAC CAGGGGAGTC TCAGCAACCA TCATTTTGA ACAGTGATAG	3060
CACTTGAAAC GACGCTTCT AAGGAGAATT CTAGAAGGCA TACCAGTCGT TTCAAGATAA	3120
GGAATTTTAG AAGGTTTGT AAAGTCATAT TTCTTCAATT GGTTCGCCA CTCAGGGCAA	3180
GATGGGCGT CGTAGTCCAG TTTGGCGATG ATTTCTTGT GTGTATCCTT ATTGATGATG	3240
TCTAAAATCT GGATATTAGG GTCTTAAATA TCGAGCAGTT TTGTGATAAA ATGTAATGT	3300
TCCATATGAA TCTTCTAAT GAGTTGTTTT GTCGCTTTTC ATTATAGGTC ATATGGGACT	3360
TTTTTTCTAC AACAAAATAG GCTCCATAAT ATCTATAAGG GATTTACCCA CTACAAATAT	3420
TATAGAGCCG AAAATTCACA TCTAATATAT GCAGACTACT TTGAAATGAA ATTAAAAAA	3480
TTATTAAAGG ATGACACAAA AGTTTTTGAA AAATCTACAT TCAAATTTGT AGAAGGATAT	3540
AAAATATACC TGACAGAATC TAAAGAATCT GGAATTAAC AAATGGACAA TGTCATAAAA	3600
TATTTTGAGT TTATTGAATC TAAAAGTATT GCTTTATATT TTCAAAAACG ATTAAATGAG	3660
CTGATAGATT AAATAGCATT TTCTCTGTTG AGATATTGTT TTTAAATAT TGTACTAAAT	3720
GATTGATGCT ATGTGGAAAT ACAAAAAAAT GTTTTGATA CGAAGTTGAC CTGTATTTT	3780
TATACTAATC ATTTTCGTAT TTTTGTATT AAACGATATA AGTTTGTGT AAACCTTACA	3840
GGAATAAAGA CATTAAAAA TAACAGTATA TCTATTTGTT TTATATATTT TACGAATTCT	3900
GCATAAATCT CTTTCTAGTA ATGTGTTGTA ACTCTGCTAT AATAGATTTA TTCCTTTTGT	3960
TGTTTACACA ATTTATTTTA TAGTACCAAA AAAGGTCAGG ATTTTGTTC TGACCTTTGA	4020
CAACTTTACC GATTCTTTAG TTCTACATAG CGCTTGATAC AAATGTTTAC ATAGGCTTCT	4080
GAGAAAGGAC CACGTCCATT GTTAATCCAA TCAACAAGAA TTTTGACATG TTCTTTTAAA	4140
ATATAGTCCA AGTCATCAGA ATAATTCATT TTGCGTTGT GACGCTCGTA CTCTTCAACG	4200
TCCAAGAGAC GTTTTCCCC ATCTGTAAAA ATTTTAACAT CCAAATCGTA ATCAATATAC	4260

631

TTCAGTGCTT CTTCATCCAG ATAGTAGGGG CTAGCCATAT TGCAATAGTA AGAAGTTCCA	4320
TTATCACGAA TCATGGCAAT GATATTAAAC CAATATTTCT TGTGAAAGTA AACAAATAGCC	4380
GGTTCTCGAG TGACCCAACG ACGACCATCA CTTTCGGTAA CAAGTGTATG ATCGTTGACA	4440
CCAATAATGG CGTTTTCTGT TGTTTTGTAGT ACCATGGTGT CCCGCCAAGT TCGGTGGAGA	4500
CTCCCATCAT GCTTATAACT TTGAATTGTA ATAAAGTCGC CTTCTTTTGG AAGCTTCATA	4560
ACTAACCAAC TTTCTACAAT TTATAAGTTT ATCATTTACT ATTGTACCAT AAAATTACCC	4620
AAAATCTGTG AATTTCACCT GGAAATATTA AAGATATTCT CTAAGAGCGC TTGCTATATC	4680
CGAAAAATCG TAGCCCTTTC GTGCTAAAAC TTGAGTTAAA CGCTGCTTCA GTTCGTATCC	4740
TTCATACTTT CGGGCATACT TAGTATATTG CTTATCAAGT TCCTTGAAGA TGAGTTCCTG	4800
AGTCGTTTCT TCATCAACTT GACTATCCAA TTCGTCAAAG GCAATTTTAG CATCAAAATA	4860
AGAGAAGCCC TTGTTAGTCA AGTTCTGGAT AATCTTATCT TGCAGGGCAC GAGCTGGAAG	4920
TTTTCCCTCA TATTTTTTCA ATAGTTTATT GGCTACACGT TGAGCAACTT CCGAAAAATC	4980
AAAATCATTC AAGATTTCTT CTATAGTAGA TTTTGAAATT CCTTTTGTG CTAATTTCTG	5040
AGTCAGTACA TAAGGTCCCT TGTCTCCTGA AAGTTGATTG GCATTGATGA TAGCATAAGC	5100
GTACTGGCTA TCATTAATCC ACTTCTCTTC TTAAAGATTA GCAATGACTT GAGAAACGAT	5160
GTTTTCATTA ATATCATATT TTTTCAGATA TTCTCTGACC TCTTTTTCAG TACGTGCTTT	5220
AAAGGATAAG TGGTAGAGGG CCAGATTCTT ACCATAAGAA AATTGAGCAA AGTCTTGAAT	5280
CTCTTCAAT TCCTCTTCGC TTATCACCTT ATCTCTCGAT AACATAAAAC GAACAATTGT	5340
GTCTTCGGTG ATATAGCATT TGTCG	5365

(2) INFORMATION FOR SEQ ID NO: 78:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3636 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 78:

TTTCCAGAAA GAAGTTGAGT AAAGTCTTTA TCAAAGAGAA TGACTTCCGT ATTGGAACTG	60
ACATTAGGTT TTATTTCTAC TTTACTAGCG TCCGCCCTAG CATTTTCTAA ATCTTTAATC	120
TCTTCTGTTG CCCTATTAT AGCCAGCTGA ATAAGTCTT GAGGATTTTC ACTCAGTCCA	180
TGAAGCTTAT CGTCCACCGA AGTATAAAGA CTCGAATGCA TGACTTGTAA AATAATCAGA	240

632

GTCATTGTAG	AAAAAATCAG	GGTGAAGACA	CCGAAGTTGC	GGATAAAATA	ACTAAAGTCA	300
TCCGCATACC	ATGTTTTTTT	AAGTTTACTG	AACATCTTTT	AAAAGATACC	CAACACTACG	360
CAAAGTTTGC	AAATTCCTCG	CAAAAGTGGT	TCCCTTTAAT	TTCTTACGGA	CTTTTGAAAC	420
ATAGACTTCG	ACAACCGAAA	TCGTTGTATC	ACTATCAAAT	CCCCATAGAC	GGTCAAAAAT	480
CTGCGTCTTA	GGCAAAATCA	CATTTTGATT	TTGAAGGAAA	TAAACTAGTA	AATCGAACTC	540
TTTCCCCAGC	AATTCGACAG	GAGTATCTTC	AACTTTAACG	GTATTGGTTG	ATAAATTAAC	600
CACGATATTC	CCATAAGTCA	AGGTGTTTTT	ATTAAACTTC	CCTGAACGTT	TGAGAAGGGC	660
CTGAATCCGC	ATTTTAAGTT	CTTCTAGGTA	GAAAGGTTTG	GTCAGATAAT	CATCCGCTCC	720
CAGTTCAAAT	CCATGTCCCT	TGTCATCCAA	ACTTTCCTTG	GCAGTCATAA	TCAGAACTGG	780
TGTCGTAATT	CCCTTTTCAC	GCAATTCTTT	TAAGACTTGG	AAACCATTTC	TTTCTGGCAA	840
CATCAAATCC	AGCAAAATCA	AGTCATAGAC	ACCACTCTCA	GCTTCGTAGA	GACCTTCTTC	900
TCCATCAAAT	ACCTGCATAA	CATCCGCAAA	ATCGTCTAAA	AAGTCAAATA	CTGAATTTGA	960
CAGACCTAGG	TCATCCTCAA	CCAATAAGAT	TTTTATCATG	AGAAACTCCT	CCTTATTAAA	1020
ACTATTATAC	CAAAATTTGCC	TTAAAAAATA	CTCAACTCTC	TGCATTTTAC	ATGAGATAGC	1080
TGAGTTTCTT	TTTTATTTTA	GGCTTATTTA	TGCATTTCCG	TATTGAAGAA	CAACTGCTTC	1140
GACTGCAGCT	TTTTACGGC	TAATCAAGTC	AACACGCGCT	GCAATTTCTT	TGATTCCCAT	1200
ACCGATGTTA	CGGCTAAGAG	CAAGGTCAGA	AAGTTGCCGT	TCAAAGAACT	CCTTGTTATTC	1260
CGCCAAGCGT	TGCTGAGTCT	TAAATACATG	AGCAGGAAGG	ATAACAAAGC	TATCAAAGCT	1320
CATATCTCCT	CCAAGGGCTG	CCTTAATCCA	AGCCCAGTTT	TCACGCGCCC	AAGACCAAGC	1380
TGTTTTCTGA	GTTGCTTGAT	GAGCTAGGAA	TTGGTAATAC	CAAGCAGACA	AGTCCTGTGG	1440
TTTGACCACA	AATTGTCTCT	TCCAAGAAGT	AATCAGGTTT	TGGATATTAT	CCGCATCTGT	1500
ACTGTATGCA	AGAGCTGCTG	CCAACTGGCG	TTTAAAGACA	GCATCTGTTG	CGTGAGTATA	1560
AGTATCAAGA	TAAAGTGCTA	ACAAGTCTTT	AGTCTCATGA	TGTTTCATCT	CATTAATCAG	1620
AACTTGTGAG	CGAATAGCTG	CTGGGAGTCC	TGCAAGATTG	TCCTTGTGTG	TTGCGAAGAT	1680
TTGGCTAGCG	ACTTGACTAG	CTTCTGCATC	ATTTGAGCGA	ATCATCATCG	AAACAGCCAG	1740
CTGACGAACC	AATTCATCCT	CATCTGATTC	TCCGTCTTTA	GCTTCAAAAC	CAAGACGGTC	1800
ATAGTTATGA	CGAGCCAATT	TAGCAACCAG	TCCTTTGAAG	GCTGTTTCAG	CATCCGTTCC	1860
TTTATCAATA	AAGCGCTCAA	GGGCTGAAAT	CACTTGAGAA	ACAGCTGAAA	CCACCAGATA	1920
AGACTCTTCC	TTAGCAAGTT	TATCAAGAAC	TGGAAGCAAG	TCTGCATAAG	AAATGTGCCC	1980
TGCCTCAGCC	AACAAACGAC	GTTCTTGAAC	AATTTGCAGT	TTGCTTGTGT	TATCAAGTGT	2040

633

CTCTAGCTCA GCAAGAACAG CTGCTAACAA GTCTCCTTGA TAGTCGGTAA TATAGTGGGC	2100
AGTATTTTCA GTGTGAGAC GAAGAGCTCC TTCATTTTCA GCAAGAAGAG CTGCGTAGCC	2160
AGGGATTTCG ATACTTTTCAG TTTCGAGTGT ATCAGGCAAG CCTTTCCAGT TGCTATTGAG	2220
GGGCACCACC CAGAGACGGT TCTTGTCTTC GTTCTCACCG ATGAAGAATT GTTTTGTGA	2280
AATCTTCAAG ACATCATTTT CAACTTTAAC AGTAAGAACT GGGTAACCAG GCTGTTCCAA	2340
CCAAGAATCC ATGAAGGCTG CGACATCACG TCCTGACGCT TGACCAAGGG CATCCCAAAG	2400
GTCACTACCA ATGGTGTGCG TGTATTGGTG TTTTCAAAG TAGGCGTGCA AACCTTTAGC	2460
AAAATCAGCA TCTCCTAGCC AACGGCGAAG CATGTGCATG AGACGGCTTC CTTTGGCATA	2520
GACGATAGCG CCGTCAAAGA GTGTATTGAT TTCATCTGGA TGTTTAACTT CGACGTGGAC	2580
AGACTGAACG CCATCAGTAG CGTCACGTTT AAGAGCAAGA GGTACTCCAC CTGTTTGGA	2640
ATCTTCAAAG ATATTCACG TTGGTTCGAT GGTATCCACA CAGACGTATT CCATCATATT	2700
AGCGAAACTT TCATTGAGCC AAAGGTCATC CCACCATTTT ATAGTCACGA GGTTCCTCAA	2760
CCATTGGTGA GCCAATTCAT GGGCCACAAC AAGGGCAACT TGTTGACGGC TAGCAAATGT	2820
AGAGTTCTCA TCGACAACCA AGTAAACTTC ACGGTAGGTC ACAAGACCCC AGTTTCCAT	2880
AGCACCAGCT GAGAAGTCAG GAAGGGCGAT GTGGAGAGAT TGAGGAATTG GGTACTTAAC	2940
TCCATAGTAA TCTTCGTAAC ACTCGATAGA GCGAACAGCG ATATCCAGTG AGAAATCAAG	3000
ATTTGAAAGT GGATGTGCTT TGTTGAGTA GACACCTACC AGGGTACCAT TTTAGTTTTT	3060
AGCGGTCACC CCTTGCAAT CACCAGCAAC AAAGGCCAAC AAGTAAGAAG ACATGCGAGG	3120
TGTTGTCTCA AACTTCAGA TACCTGTTTC CTTACGGTTT TCAACATCGA TTTCTGGCAT	3180
GTGTGACAAG GCCAATTCAC CTTCTGCTTG GTCAAAGCGA AGAGAGAGGT CAAAAGTTGC	3240
TTTGGCTTCA GGCTCATCCA CACATGGGAA AGCTTCGCGC GCAAAATGGC TCTCGAACTG	3300
AGTAGACAAG ACCTCCTTCT TGACTCCATC AACTGTATAA TAAGAAGGGT AAATCCCTGT	3360
CATGTTGTCT GTAATTTTAC CAGAAAAGGC AAGAACCAAT TCAACTTGAC CAGCCTCAGC	3420
CAATTCGATA TGAAGGGCTT CATTGTCATG GTCAACTGTA AATGGACGAG CTTGACCTGC	3480
AACTTCTACA GAGGTGATTT CCAAATCTTT TTGGTGGAGG GAGATGCGGT CACTCTGTGC	3540
TTGACCAGTG ATGGTCACTT TCCCAGAAAA AGTCTTGGTC TCACGACTCA AATCTAAAAA	3600
TAAATCATAA TGTTCAGGAA CAAATTGCTT AATGGG	3636

(2) INFORMATION FOR SEQ ID NO: 79:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5066 base pairs

634

(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 79:

ATAGCGTGTA ATAATCGATT TTAGAGGTAC CATAAGCCAC CTCCTACAAA TAGAAACCGA	60
TATAAATCAA TGCCTTCCAC CCTTAGACTT CCCTAGTTCC TGTCTCAAGC GAAACATTTT	120
TTTGAAACAG GAATAAGTTA ACCAATTCAT ACCAATAGCT AGCAGAATAA AAAGAAACCA	180
AATGCCCAT AACTTGATAT CTGTCACATT TCTCAAGACG GTATTGAAAA ACAGAACTGA	240
AACAACGTGC CAAGCAAGGC TAAAAAGAGA ATAGAAGGGG ATGTAAAACC AGTAAAAATA	300
ATAAAAAATT GGAAAAACT TACTATTTCT GTTGGCCTTT TCAATCCAGT TATCAAATA	360
AAAGTACGGT GCTAAAAGTA AGAATTTAAA CAAATGTTCC ATCACCACGACA TCCCCCTTC	420
TTTTGATAGC GTTTTCTATT ATTTTATTAT ATCAAAAAA TCCGGAACGT TCATTCCAGA	480
TTCTACTTTT TTATTGCGT TTTCTTGCGA TGAGATGAAT CGGTGTTCCC TCAAAAACAA	540
AGGCCTTGCG GATTGATTT TCCAAGAAAC GCAGGTAAGA AAAGTGCATG AGTTCTTCTT	600
CATTGACAAA GATGACAAAG GTTGGTGGTT TGGTTGCCAC TTGGGTCGCA TAGAAAATCT	660
TGAGACGTTT TCCTTTGTCT GTCGGTGTG GGTGATGGC AATGGCATCC ATGATGACAT	720
CGTTCAAGAC AGCTGATGGA ATACGTGTAT TTTGACTTTC GCTGATTTGC TTAATCATCT	780
CAGGAAGTTT GTGAGACGT TGCTTGGTTA AAGCTGATAC AAAGATAATC GGTGCGTAAG	840
GCAGGTATTG GAACTGCTCA CGGATATCTT CTTCCCAGTT TTCATAGTG TGGTTATCTT	900
TTTCAAGCGT ATCCCACTTG TTGACCACGA TAATCATCCC TTTACCAGCT TCATGGGCAA	960
ATCCTGCGAT ACGCTTGTCT TACTCACGAA TGCCTTCTTC CGCATTGATG ACCATCAAGA	1020
CCACATCTGA ACGGTCAATA GCACGCATGG CACGCATAAC AGAGTATTTC TCAGTATTTT	1080
CATAAACCTT ACCAGACTTA CGCATACCAG CCGTATCAAT CATGGTAAAC TCTTGACCAT	1140
CTGTATCTGT AAAGTGGGTA TCAATGGCAT CACGAGTTGT TCCAGCAACA GGACTIONCAA	1200
TAACACGGTC TTCTCCCAAG ATAGCATTGA TCAAGCTTGA TTTTCCAACG TTAGGACGAC	1260
CAATCAAGCT AAACCTAATG ACATCTGGAT TTTCTTCCTC ATATTCATTT GGAAGATTTT	1320
CTACGATCGC ATCTAGCACA TCCCCTGTAC CGATTCCATG GACAGATGAG ATAGGCAATG	1380
GTTCACCCAA ACCGAGAGCA TAGAAATCAT ATATATCATT TCTCATCTCA GGGTTGTCCA	1440
CCTTGTGAC TGCAGAGATA ACTGGTTTGT GGGTCTTATA AAGCTTACGA GCTACGTATT	1500
CGTCTGCATC AGTAATTCCT TCCTTACCAG ACACGACAAA AACGATAACA TCTGCTTCTT	1560

635

CCATGGCAAT TTCTGCCTGG TGCTTGATTT GTTCCATGAA AGGAGCATCG ACATCATCAA	1620
TTCCCTCCTGT ATCAATCATG CTAAAAGAAC GATTGAGCCA CTCACCCGTT GCATAAATAC	1680
GGTCACGTGT CACTCCTTCG ACATCTTCTA CAATGGAGAT TCGCTCACCA GCGATCCGAT	1740
TAAATAGGGT TGATTTCCTA ACATTGGGAC GTCCTACAAT GGCAATAGTT GGTAGGGCCA	1800
TAATTTCTCA CTTTCTACAA TAATTTCTTC TGTTCAGAT TTTTCTAGT TGAGCTTGGT	1860
TCAGCTTGAC CAAACTGTTC TGCTAGGCGC TGACTCCAGC TTGTGGTCGC ACGCGCCCCA	1920
GCATAGTCAG CCTGAACACG GTCATAAGCT TGGATTGCCT CAGTTGACTG TTCTTGGTAT	1980
TCTTCCTCAA AGACAACATT CTCTAGTGGC AGTCTCGGTT TCATATCATG ATGTTGATTT	2040
GGCACACCCA GTGCCATCCC AAAGACAGAA TAGGTGTAGT CAGGTAGGTT AAAGAGCTCT	2100
GCCACTTCTT CAGACTTGTA TCGAACCAAA CCGATAATCA CACCACCATA GCCCAAGCTT	2160
TCAGCTGCCA ACAAGGCGTT TTGTCCAGCA AGAGCTGCAT CGACCGAACT AATCAAGAGA	2220
CCTTCCACAC CTTGGGGTTG GAAGGTGTGG GTATGAAGTC GGGCTCCCTT TTCTGCTCGG	2280
TTCAAATCTC CGACAAAGAG AAGGAAAACA GCAGACTGGC GAATGGCTTC TTGAGGTACC	2340
AATTCATACA AGGCATCTTT CTTCTCTTGA CTTCTGACCA CAATCACAGA GTAGGATTGG	2400
AAATCTTCC AAGATGATGC CATCTGGGCT GCTGTCAAAA TCTCATTTAA GTCTACTTGG	2460
GGAATTTCTT GCTCTTTAAA CCTGCGCACT GAAGTATGAG CCTTCATCAA TTAAATGGTT	2520
TCTGTATCG ACGGTTTACT CCTTCTAAAC GAGTCTCCTC AGCCAAATAA CGGATGCGTT	2580
CCATGACCCG TCTGGCTTCC CAGGTTTCGT CATTTCCATG TTTCACTTTC GCAAAATGCT	2640
TCTCCAAATC TTCAAAGTTG AAGTTGGATG TGAAAAAGGT CGGTAAATTT TCCTGCATCC	2700
GATATTGGAG AATGACCTGC AGGATTTTCGT CACGCACCCA AACGGTTGAT TGCTCGGCGC	2760
CAATATCATC TAAATCAGG ACCTCAGACA GCTTAATCTC ATCCACCAAG GTCTTAACAT	2820
TGCCATCACT GATAGCATTT TTGACATCAA TGACAAAGCT AGGATAGTGG AGGAGAGTTG	2880
ATGAAACACC ACGTTTTTCT GATAAATCAT GAGCTAAGGC CGCCACCATG AAACTTTAC	2940
CCACACCAAA GTCTCCATAT AAGTAAAGAC CTTTTCGAAT AGCTGGATAT TGCTCCACGA	3000
AGGCTAGTAG CTTTTCAAAA ACTGGTAAGC GCCCCAAATC ATCCAAGTCA ACTTGAGCCA	3060
AACTAGCTTT CTTGAGACTG GCTGGTAGAT TGATTAACTT GAGACGGTTC TTAATAGCCG	3120
CTTCTTTTTC AGCCGCGATT AGCTCAGGAG TTTCTTCATA TGAAACATCT GCATAACCAT	3180
GATTCCTAAC CAAAATCGGC TTGTAGCCTT TGGCAATATA ATCCGTATCC CCACGGAGAA	3240
ACTGTGCACG CTCGGTGATG TACTGATTAA ACTTGGAGAT ACTGCGATTT AATTCCTTTG	3300

636

GAGTTAAGGA TTCTTGCTGG ATAAAGGCCG CAACATCAGG GTCCTTCATG ATTTTCTGGA	3360
CCAAATCTTG ATAATAAAAA CGGCTGGGTT GACGTTTGAG TACGTCTCCG ACACTTTCCA	3420
TCTAATCTCC TCCTTTTCT AATCGAGCTA ATAGTTCTTG CTTCTTACGT TCTAGTTCCA	3480
GACGAGTTTC CTCGCTGGTT TCATTCTTAT ATTCAGGATT ACTCCATTGA GGAACATTGG	3540
TTTTTTCTGG GGCAGTCTGA TTCTGTTTTT GTGTTTTTGC TTTCTGCCCT CGATCACGAA	3600
TTCGTAAAC GGCTCTTCT GCCGAATGAA TCTTTTGATA GGCATAGTCA TTGGCTACCT	3660
TCATGGCATA TTTCTCATG ATATTTGCCG AATCCACCTT ATTAAAGGTC AATAAGAGAA	3720
TAATATTGAT GACTTCGTCC AGTAAGCCCA AGCCAGCCAT CTGTTGCAAG AGTTCTCTTT	3780
CTGTTGGGT AATGGTTCCC TTGCGTGTTC GCTTGATTTC TGCTAAGAAC TGCAGGGCAG	3840
TTTACTTTT AGCTTCTTG ATAATGGTCG CTTCTTAAG ACTAAAGTCA GAGGAACTG	3900
GTTTTTGAGC AATTTTTCA CGCATGCGTT TGGTTGAAAT AACCTGGGAA ACAGCTGTTG	3960
ACTTGCCAA TTGATAGGTT TCAAACCAAG TCCATTCTT CTCCTCGGCA ATAGCAAAGA	4020
GGTTAAGAC ATCGGACTGC TCATCCGCAA AACGAAGTCC ATCTCGAGCC ATCAGCTGGC	4080
GAAAATGTC CAAGTCAAAA TCATTGGCCA CTTTCTTCTT GAGACCAAGG TCTTCTTGAC	4140
TGCCTAGTTC TGCCAATTCT GGAAGACTT GATTGAGTGA GACAGGTATT TCTTCACCAT	4200
CAGCACTTC AACTTTCAA TCCTCCACAG CTACATCGCC AATCTTTTTC TCTAAGAGTC	4260
TGCGATAAAC AGGATGCCCC AAGAAGTCTT GACTAGATAG AGGAGCATGG AGGGCTAGCT	4320
GATAACATC ACCCTTTTGA TAGAGGGTCA AGAGATTAAA AGCAGATAAG ATTTTCAATG	4380
ATTTTATCAG TCTATCCATC CCAAAGTTGA GATGGTTGAG AATGCTTGAA AAAAGATATT	4440
CCTTTCTACC ATTATCCCAA AACTGATTG TATAAAGATA AAGGCTCAGT GCCTCCTGAC	4500
CGATAATCGG GAGGTAGCAC TGTACCAGAG ATGAGGTATC TTGCGACACC CGATTATTCT	4560
TTAGATAAGA AAAACGGTCA ATTGGCTTCA TTTATCTTTC CTTTTTCTTT TTAGAGGACT	4620
GGGTGATTTG TTGGAGCAAG CTCTCTAACT CACTGACATC CTTAAAACTA CGATAGACAC	4680
TAGCAAAACG TACATAGGTA ATCTCGTCCA ATTCAGCCAA CTCCTCCATG ACGAGTGAAC	4740
CAATGTCCTC ACTTTGAATT TCATTTTCAT TTCGACCACG GAGTTTCTGT TCGATACGAT	4800
TGACTACCAT GTTGATTTC TCACTTGACA CAGGACGTTT CTGGGCTGAG CGGATAATCC	4860
CATTAAAGAT TTTATCTCTG GAGAATTGTT CCCGTGTGCC ATCTTTTTTA ACAACCACTA	4920
AGGTTCTTTC TTCTACTCGT TCGTAGGTTG TAAAACGGTG TTGGCATTCG TCGCACTCAC	4980
GTCTTCTACG AATGGTGTT CTTCTTCTG CTTGGCGACT ATCGATAACA CTTGACTTGG	5040
TAGCCCCACA TTTTGACAG GTTACC	5066

637

(2) INFORMATION FOR SEQ ID NO: 80:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9607 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 80:

CACTTGAAGT ATTTGAAACA GCTATGGAAA ACATCATGCC TGTACTTGAA GTACGTGCAC	60
GTCTGTGTGG TGGTCTAAC TACCAAGTCC CAGTTGAAGT TCGTCCAGAA CGTCGTACAA	120
CACTTGGACT TCGTTGGTTG GTAACAATCG CTCGTCTTCG TGGTGAACAC ACAATGCAAG	180
ACCGTCTTGC AAAAGAAATC TTGGATGCTG CTAACAACAC TGGTGCAGCA GTTAAGAAAC	240
GTGAAGATAC TCACCGTATG GCTGAAGCTA ACCCTGCATT CGCACACTTC CGTTGGTAAG	300
ATAGGATGCG AAAGCGTTAA GAAAGTCCCA GAGAAAATAG GGAATCGAAG CAGGTTGCGG	360
TTGCAACCAA TGAGATTCAT CTTTTCTCC AGACTTTTAG CTTGAGCTCA ACTAAATCAT	420
GATGCTAGGA ACGGTAAGGA TGCAAGGTAA AAATAGGAAA CTGACGCAGT ATTCGACGAA	480
TACAAGGAGT TTTATCTTTT TCACGCAGCA TCCCGTTCCA GCTCACATCG GCTAACTAAC	540
TTTAGCCCGG GTTCAAATTA GCTAAATCGA TTAGTATTAG CTATAACTCA GCTTACCATC	600
TCGTAAGTTG AAACCAACAA TAGCATGAAA ACATTGAGAA CGGGTAGGTC CTGCCTATCC	660
GTTTTTATTA AAATCGTGTT ATAATAGAAT AGAAATCAAA AATAAATAGG AGAAACAAAC	720
CTCATGGCAC GCGAATTTTC ACTTGAAAAA ACTCGTAATA TCGGTATCAT GGCTCACGTC	780
GATGCCGGTA AAACAACAAC TACTGAGCGT ATTCTTTACT AACTGGTAA AATCCACAAA	840
ATCGGTGAAA CTCACGAAGG TCGGTCACAA ATGGACTGGA TGGAGCAAGA GCAAGAACGT	900
GGTATCAGCA TCACATCTGC TCGGACGACA GCTCAATGGA ACAACCACCG CGTAAACATC	960
ATCGACACAC CAGGACACGT GGACTTCACA ATCGAAGTAC AACGTTCTCT TCGTGTATTG	1020
GATGGTGCGG TTACCGTTCT TGAATCACA TCAGGTGTTG AGCCTCAAAC TGAAACAGTT	1080
TGGCGTCAAG CAACTGAGTA CGGAGTTCCA CGTATCGTAT TTGCCAACAA AATGGACAAA	1140
ATCGGTGCTG ACTTCCTTTA CTCTGTAAGC AACTTCACG ATCGTCTTCA AGCAAATGCA	1200
CACCCAATCC AATTGCCAAT CGGTTCTGAA GATGACTTCC GTGGTATCAT TGAATGATC	1260
AAGATGAAAG CTGAAATCTA TACTAACGAC CTTGGTACGG ATATCCTTGA AGAAGACATC	1320
CCAGTGAAT ACCTTGACCA AGCTCAAGAA TACCGTGAAA AATTGATTGA AGCAGTTGCT	1380

638

GAAACTGACG AAGAATTGAT GATGAAATAC CTCGAAGGTG AAGAAATCAC TAACGAAGAA	1440
TTGAAAGCTG GTATCCGTAA AGCGACTATC AACGTTGAAT TCTTCCCAGT ATTGTGTGGT	1500
TCAGCCTTCA AAAACAAAGG TGTTCAATTG ATGCTTGATG CGGTTATCGA CTACCTTCCA	1560
AGCCCACTTG ACATCCCAGC AATCAAAGGT ATTAACCCAG ATACAGACGC TGAAGAAATT	1620
CGTCCAGCAT CTGACGAAGA GCCATTTGCA GCTCTTGCTT TCAAGATCAT GACTGACCCA	1680
TTCGTAGGTC GTTTGACATT CTTCCTGTGT TACTCAGGTG TTCTTCAATC AGGTTTCATC	1740
GTATTGAATA CTTCCTAAAG TAAACGTGAA CGTATCGGAC GTATCCTTCA AATGCACGCT	1800
AACAGCCGTC AAGAAATCGA CACTGTTTAC TCAGGTGATA TCGCTGCTGC CGTTGGTTTG	1860
AAAGATACTA CAACTGGTGA CTCATTGACA GATGAAAAAG CTAAATCATC CCTTGAGTCA	1920
ATCAACGTTT CAGAACCAGT TATCCAATTG ATGGTTGAGC CAAAATCTAA AGCTGACCAA	1980
GACAAGATGG GTATCGCCCT TCAAAAATTG GCTGAAGAAG ATCCAACATT CCGCGTTGAA	2040
ACAAACGTTG AAAGTGGTGA AACAGTTATC TCAGGTATGG GTGAAGTTCA CCTTGACGTC	2100
CTTGTGATC GTATGCGTCG TGAGTTCAAA GTTGAAGCGA ACGTAGGTGC TCCTCAAGTA	2160
TCTTACCGTG AAACATTCGG CGCTTCTACT CAAGCACGTG GATTCTTCAA ACCTCAGTCT	2220
GGTGGTAAAG GTCAATTCGG TGATGTATGG ATTGAATTTA CTCCAAACGA AGAAGGTAAA	2280
GGATTGCAAT TCGAAAACGC AATCGTCGGT GGTGTGGTTC CTCGTGAATT TATCCCAGCG	2340
GTGAAAAAG GTTTGGTAGA ATCTATGGCT AACGGTGTTC TTGCAGGTGA CCAATGGTT	2400
GACGTTAAAG CTAAGCTTTA TGATGGTTCA TATCAGATG TCGACTCATC TGAAACTGCC	2460
TTCAAGATTG CGGCTTCACT TTCCCTTAAA GAAGCTGCTA AATCAGCACA ACCAGCTATC	2520
CTTGAACCAA TGATGCTTGT AACAATCACT GTTCCAGAAG AAAACCTTGG TGATGTTATG	2580
GGTCACGTAA CTGCTCGTCG TGGACGTGTA GATGGTATGG AAGCACACGG TAACAGCCAA	2640
ATCGTTCGTG CTTACGTTCC ACTTGCTGAA ATGTTGCGTT ACGCAACAGT TCTTCGTTCT	2700
GCATCTCAAG GACGTGGTAC ATTCAATGAT GTATTTGACC ACTACGAAGA TGTACCTAAG	2760
TCAGTACAAG AAGAAATTAT TAAGAAAAAT AAAGGTGAAG ACTAATCCGT CCTCACTCTA	2820
GAAGGAAGTC ACTTAGTGGC TTCCTTTTGT CTTTAGAAAA TACCTCTAAA TATGGTAAAA	2880
TAGTAGAAGA ATAATGTGAG GAAAATGAAT GTCAAATAGT TTTGAAATTT TGATGAATCA	2940
ATTGGGGATG CCTGCTGAAA TGAGACAGGC TCCTGCTTTA GCACAGGCCA ATATTGAGCG	3000
AGTTGTGGTT CATAAAATTA GTAAGGTATG GGAGTTTCAT TTCGTATTTT CTAATATTTT	3060
ACCGATTGAA ATCTTTTGTAG AATTAAAGAA AGGTTTGAGC GAAGAATTTT CTAAGACAGG	3120
CAATAAAGCT GPTTTTGAAA TTAAGGCTCG GTCTCAAGAA TTTTCAAATC AGCTCTTGCA	3180

GTCCTACTAT AGGGAGGCTT TCTCTGAAGG TCCATGTGCT AGTCAAGGTT TTAAGTCCCT	3240
TTATCAAAAT TTGCAAGTTC GTGCTGAGGG TAATCAGCTA TTTATTGAAG GATCTGAAGC	3300
GATTGATAAG GAACATTTTA AGAAGAATCA TCTTCCTAAT TTAGCCAAAC AACTTGAAAA	3360
GTTTGGTTTT CCAACTTTTA ACTGTCAAGT CGAGAAGAAT GATGTCCTGA CCCAAGAGCA	3420
GGAAGAGGCC TTTCATGCTG AAAATGAGCA GATTGTTCAA GCTGCCAATG AGGAAGCGCT	3480
CCGTGCTATG GAACAACTGG AGCAGATGGC ACCTCCTCCA GCGGAAGAGA AACCAGCCTT	3540
TGATTTTCAA GCGAAAAAAG CTGAGCTAA ACCCAAGCTG GATAAGGCGG AGATTACTCC	3600
TATGATCGAA GTGACGACAG AGGAAAATCG TCTGGTATTT GAAGGGGTTG TTTTGTATGT	3660
GGAGCAAAAA GTGACTAGAA CAGGTCGTGT TTTAATCAAC TTTAAAATGA CGGACTATAC	3720
TTCAAGTTTT TCTATGCAA AGTGGGTAA AAACGAGGAA GAGGCCAGA AGTTTGACCT	3780
CATCAAGAAG AATTCTTGGC TCCGAGTTCG AGGGAATGTG GAGATGAATA ACTTCACACG	3840
CGATTTGACT ATGAACGTAC AGGATCTGCA GGAAGTTGTT CACTATGAGC GGAAGGATTT	3900
GATGCCAGAA GGTGAGCGTC GGGTTGAGTT TCATGCTCAT ACTAACATGT CGACTATGGA	3960
TGCTTTGCCA GAGGTGGAAG AGATTGTTGC AACAGCTGCT AAGTGGGGAC ACAAGGCGGT	4020
TGCTATCACG GACCATGGGA ATGTCCAGTC CTTCCACAT GGCTATAAGG CGGCTAAGAA	4080
AGCGGGAATC CAGCTGATCT ATGGGATGGA AGCCAATATC GTGGAGGACC GTGTCCCTAT	4140
CGTCTATAAC GAAGTGGAAG TGGACTTGTC AGAAGCAACC TACGTGGTCT TTGACGTGGA	4200
AACGACGGGA CTTTCAGCTA TCTATAATGA CTTGATTCAG GTTGCGGCTT CTAAGATGTA	4260
CAAGGGGAAT GTTATTGCTG AATTGATGA ATTTATCAAT CCTGGGCATC CCTTGTGAGC	4320
CTTTACTACA GAGTTAACTG GAATTACAGA TGATCATGTC AAAAATGCCA AACCCTAGA	4380
ACAAGTTTTG CAAGAATPCC AAGAATTTTG CAAGGATACG GTCCTAGTTG CCCACAATGC	4440
TACCTTTGAC GTTGCTTTA TGAATGCTAA TTATGAGCGG CATGATCTTC CAAAGATTAG	4500
TCAGCCAGTT ATTGATACGC TGGAGTTTGC TAGAAACCTC TATCCTGAGT ATAAACGCCA	4560
TGGTTTGGGG CCTTTGACCA AGCGTTTTGG TGTGGCCTTG GAACATCACC ACATGGCCAA	4620
CTACGATGCG GAAGCGACTG GTCGTCTGCT TTTTCATCTT ATCAAAGAGG TAGCAGAAAA	4680
ACATGGTGTG ACCGATTTAG CTAGACTCAA CATTGATCTA ATCAGTCCAG ATTCTTACAA	4740
AAAAGCTCGG ATCAAGCATG CGACCATCTA TGTCAAGAAT CAGGTAGGTC TAAAAAATAT	4800
CTTTAAGCTG GTTTCCTTGT CTAATACCAA GTATTTTGAA GGAGTGCCAC GGATCCGAG	4860
AACGGTTCTA GATGCCCATC GAGAGGGCTT GATTTAGGT TCAGCCTGTT CAGAGGGTGA	4920

640

AGTTTGTGAC GTGGTCGTTT CTCAAGGTCT GGATGCGGCG GTTGAGGTGG CCAAGTATTA	4980
TGATTTTATC GAGGTCATGC CACCGGCTAT CTATGCACCC TTGATTGCCA AAGAGCAGGT	5040
CAAGGATATG GAGGAACTCC AGACCATTAT CAAGAGTTTG ATAGAGGTTG GAGACCGCCT	5100
TGGCAAGCCT GTTCTGGCTA CGGGAATGT TCACTATATC GAACCGGAAG AAGAGATTTA	5160
TCGTGAAATT ATCGTCCGTA GTTTGGGACA GGGTCCGATG ATTAATCGAA CTATCGGTCA	5220
TGGTGAACAT GCCCAACCAG CACCACTTCC AAAGGCTCAT TTTCGAACGA CTAATGAGAT	5280
GTTGGATGAA TTTGCCTTTT TGGGAGAGGA ACTGGCTCGT AAATGGTTA TTGAAAACAC	5340
CAATGCCTTG GCAGAAATAT TTGAATCCGT TGAAGTCGTT AAGGGTGA CTGTATACGCC	5400
TTTCATCGAC AAGGCTGAAG AAACAGTTGC TGAGTTGACC TATAAGAAAG CTTTGTAGAT	5460
TTATGGAAT CCGCTGCCAG ATATTGTTGA TTTGCGGATT GAAAAAGAA TAACATCCAT	5520
ACTGGGGAAT GGATTTGCTG TGATTTATCT GGCATCGCAG ATGCTGGTGC AACGTTCTAA	5580
TGAACGGGGT TATTTGGTTG GTTCTCGTGG GTCTGTCGGA TCTAGTTTCG TTGCGACCAT	5640
GATTGGGATT ACGGAGGTCA ATCCTCTCTC TCCTCACTAT GTCTGTGGTC AGTGTCACTA	5700
CAGTGAGTTT ATCACAGATG GTTCGTACGG TTCAGGATTT GATATGCCCC ATAAGGACTG	5760
TCCAACTGT GGTCAAAAC TCAGTAAAA CGGACAGGAT ATTCCGTTTG AGACCTTCCT	5820
TGGTTTTGAT GGGGATAAGG TTCCTGATAT TGACTTGAAC TTCTCGGGAG AAGATCAGCC	5880
TAGCGCCAC TTGGATGTGC GTGATATCTT TGGTGAAGAA TATGCCTTCC GTGCGGGAAC	5940
GGTTGGTACG GTAGCTGCCA AGACTGCCTA TGGATTGTG AAAGGTTACG AGCGAGATTA	6000
TGGCAAGTTT TATCGTGATG CAGAAGTAGA ACGCCTCGCT CAAGGAGCGG CGGGTGTCAA	6060
GCGGACAACA GGCCAACACC CGGGGGGAAT CGTTGTTATT CCGAACTACA TGGATGTCTA	6120
CGATTTTACG CCTGTCCAGT ATCCAGCAGA TGATGTCACG GCTGAATGGC AGACCACTCA	6180
CTTTAACTTC CACGATATCG ATGAGAAGCT CCTCAAACTC GATGTACTGG GACATGATGA	6240
TCCGACTATG ATTCGAAAAC TTCAGGATTT GTCTGGTATT GACCCTAATA AAATTCCTAT	6300
GGATGACGAA GCGTGATGG CACTCTTTTC TGGGACTGAT GTGCTAGGGG TAACACCTGA	6360
ACAAATTGGA ACGCCTACGG GTATGTTGGG GATTCCAGAG TTGGAACAA ATTTCTGACG	6420
TGGAATGGTA GACGAAACCC ATCCGACAAC CTTTGCAGAA TTGCTTCAGC TGTCTGGTCT	6480
GTCCACGGT ACTGATGTTT GGTGCGGGA TGCTCAGGAT CTGATTAAGC AAGGAATAGC	6540
GGACCTATCG ACTGTTATCG GTTGTCGGGA CGACATCATG GTTTACCTCA TGCATGCGGG	6600
TCTGGAACCT AAGATGGCCT TTACCATTAT GGAACGGGTA CGTAAGGGTT TGTGGCTAAA	6660
GATTCAGAA GAGGAGAGAA ATGGCTATAT CGAAGCAATG AAGGCTAATA AGGTGCCAGA	6720

641

GTGGTATATC GAATCCTGTG GGAAAATTAA GTACATGTTC CCTAAGGCC ATGCGGCAGC	6780
CTACGTTATG ATGGCCTTGC GTGTAGCTTA CTTCAAGGTT CACCATCCTA TTTATTACTA	6840
CTGTGCTTAC TTCTCCATTG GTGCTAAGGC TTTTGATATC AAGACCATGG GTGCGGGCTT	6900
GGAGGTCATC AAGCGCAGAA TGAAGAAAT CTCTGAAAA CGGAAGAACA ATGAAGCCTC	6960
TAATGTGGAA ATCGATCTCT ATACAACCTG TGAGATTGTC AATGAGATGT GGAACGAGG	7020
TTTCAAGTTT GGTAAATTAG ATCTCTACTG TAGTCAGGCG ACAGAGTTCC TCATCGACGG	7080
GGATACCCTT ATCCACCATT TTGTAGCAAT GGATGGTCTG GGAGAGAACG TTGCCAAGCA	7140
ACTGGTGGG GCGCGTGAAG AGGGAGAATT CCTCTCTAAA ACAGAACTAC GCAAGCGTGG	7200
TGGACTCTCA TCAACCTTGG TTGAAAAGAT GGATGAGATG GGTATTCTTG GAAATATGCC	7260
AGAGGATAAC CAGTTGAGTT TGTGTGATGA GTTGTTTTAA AAAATTGCTT AATAATCTAT	7320
TAAAAGAGGC TAACGTATAT CCAATAGATT TACATTAGCT TTTCTTTTTC TAAAATAGT	7380
CTATGGAAG AGGGTGAGAG TATGTCAAAG ATGAGTATAA GCATCCGTCT GGATAGTGAG	7440
GTTAAGGAGC AGGCCCAACA GGTGTTTAGT AATCTGGGAA TGGATATGAC AACAGCTATT	7500
AATATTTTCC TTCTGACGC AATTCAATAT CAGGGATTAC CTTTGTGATG TAGACTAGAC	7560
GAAAATCGGA AGTTGCTCCA AGCGTTAACG GATTTAGACC AAAATCGTAA TATGAGCCAG	7620
TCMTTGAAT CAGTCTCAGA TTTGATGGAG GACTTACGTG CTTAAGATTG GTTATCATAA	7680
ACAGTTTAAA AAAGATTTTA AGTTGGCTAT GAAGCGTGGT TTGAAGGCAG AATTATTAGA	7740
AGAAGTTTG AATTTTCTGG TTCAAGAAAA AGAACATCCT GCCAGAAATC GTGATCATTC	7800
ATTGACGGCA TCCAAGCATT TTCAAGGAGT TCGTGAATGC CATACCCAGC CAGATTGGCT	7860
TTTGGTTTAT AAAGTAGACA AGTCGGAATT GATTTTAAAT TTGCTGAGGA CAGGCAGTCA	7920
CAGTGATTTA TTTTAATCTA TTTTAAGGGG GTTCTCATGA AACTAAGAAT ATTTGCGGAA	7980
GATAAGCCGG CTAAGAAGGT ATTTGAATAT CAATTAGAAC TTGCTGATCG TACAATTCTT	8040
CTATCGACAG CACTCTTGTC AGGTGCTATT GCTTTAGCAG GAATCTTTTC TGCTTTGAAA	8100
GAAAAATAAA AATAGAAAAG AGAAAACAGA ATGGTTTAC CAAATTTTAA AGAAAATCTA	8160
GAAAAATATG CGAAATTGTT GGTGCGAAC GGAATTAACG TGCAACCTGG TCACACTTTG	8220
GCTCTCTCTA TTGATGTGGA GCAACGTGAA TTGGCACATC TAATCGTGAA AGAAGCTTAT	8280
GCCTTGGGT CGCATGAGGT CATCGTTCAG TGGACAGATG ATGTGATTAA CCGTGAGAAA	8340
TTCTCCATG CCCCAGTGA GCGTTTGGAC AATGTGCCAG AATACAAGAT TGCTGAGATG	8400
AACTATCTCT TGGAGAATAA GGCTAGCCGT CTTGGAGTTC GTTCATCTGA TCCAGGTGCC	8460

642

TTGAACGGAG TGGACGCTGA CAAGCTTTCA GCTTCTGCTA AAGCTATGGG ACTTGCCATG	8520
AAGCCTATGC GTATCGCAAC TCAATCTAAC AAGGTTAGCT GGACTGTAGC AGCTGCAGCA	8580
GGACTTGAGT GGGCTAAGAA AGTCTTCCCA AATGCTGCGA GCGACGAAGA AGCAGTTGAT	8640
TTCTTTGGG ACCAAATTTT CAAACTTGC CGTGTCTACG AAGCAGATCC TGTTAAGGCT	8700
TGGGAGGAAC ATGCAGCCAT TCTCAAGAGC AAGGCCGATA TGCTTAATAA GGAGCAATTT	8760
TCAGCCCTTC ACTACACAGC GCCAGGAACA GATTTAACAC TTGGTTTGCC AAAGAACCAC	8820
GTTTGGGAAT CAGCTGGTGC TGTCAATGCA CAGGGCGAAG AATTCTTGCC AAATATGCCA	8880
ACAGAAGAGG TCTTCACAGC GCCTGACTTC CGTCGTGCAG ATGGTTATGT CACTTCTACA	8940
AAACCGCTTA GCTACAACGG AAATATCATT GAAGCATT AAGTGACCTT TAAGGATGGA	9000
CAAATCGTAG ATATCACTGC TGAGAAGGGT GATCAGGTTA TGAAAGACCT TGTCTTTGAA	9060
AATGCGGGTG CGCGTGCCTT GGGTGAATGT GCCTTGGTAC CAGATCCAAG TCCAATTTCT	9120
CAGTCAGGCA TTACCTTCTT TAACACCTT TTCGATGAAA ATGCGTCAA CCACCTGGCT	9180
ATCGGTGCAG CCTATGCGAC TAGCGTTGTT GATGGAGCGG AGATGAGCGA AGAGGAGCTT	9240
GAAGCTGCAG GGCTTAACCG TTCAGATGTT CACGTAGACT TTATGATTGG TTCTAACCAA	9300
ATGGATATCG ATGGTATTCG TGAGGATGGA ACGCGGGTAC CTCTTTTCCG TAATGGGAAT	9360
TGGGCAAATT AAGGAGATAA TATGTTAGGA AGTATGTTTCG TTGGTCTCCT AGTGGGATTT	9420
TTAGCAGGTG CTATGACCAA TCGTGGAGAG CGAATGGGAT GTTTTGGA AATGTTTCTC	9480
GGTTGGATCG GAGCCTTTCT AGGTCACTTG CTCTTTGGAA CTTGGGGGCC AGTTTATCA	9540
GGAACAGCTA TTATCCAGC GATTTTAGGA GCCATGATTG TTTTAGCTAT TTTTGGAGA	9600
CGAGGAA	9607

(2) INFORMATION FOR SEQ ID NO: 81:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14231 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 81:

CTACAAGATA ATTCCAGCTA TAACATCCGC TATAATAGTA AGAGCGAGCT CTATGATAAG	60
GCTCATTAGT TTCACCTCCT CTCACGAACC CATAGGAACG TAATCGGTAA CCGATGACAA	120
AAATAGTATA CCACAATACA TTTAGATCAT CAAGTCACT TAATTCTTGA AATATCAGAT	180
CTAAGAGAAA AATCTTTAAA ATCAGAAAAA CGCATAATAT CAGGTGTGCA AAAACTTGAT	240

643

ACTATGCGTT TTATTGTGGG AAGGTTTACT CCATTTTCTC CTGAAATGA GTTTTGTGCC	300
AGCCTCTGTT TTTAGGGTTG CTAAGAAAAA AATGTCATGT GGTGAATATT TGTAAATCAG	360
TCAGCAGACA GAACGATACT CTTCGAAAAA CTCTTCACAT CATGTCAGCT TCGTCTTTCC	420
GTATATATGT GACTGACTTC ATCAGTTCTA TCTACAACCT CAAAACAGTG TTTGAGCTG	480
ACTTGATCAA TTTTCAAATC TGTACTTTGA GCAAGCTGAG ACTAGCTTCC TATTGATTT	540
TCATTGAATA TCAGAAACCC ATTCTCCATC AAATAATTCTG ACTGCGTCTA ATAATTTTGT	600
ATCTGGCAGC GTGCTGAAA TAAAGGTTGT GTATTTGGAG AGGGGATTAA TTTTAAAAAA	660
TCCAGTCTTG TAAAAATTAG AACTATCAAT CAGTAAGATG GTTTCATGGG CTTGTCAAT	720
AATATTCTTT TTTGAAATAG CTTGGCTGAG AGAAGCTTCA TAAACATATT GGTCAATCAAT	780
ACCTCTTGCT GAACAAAATG CTAATCGAT ATTAAAATGA TCTAATAAAG AATTTTCCTT	840
ATCATAGTTG ACCACGAAC AGGATTGATG TTTGACCTCG CCAGATGTGA TAAAGATTTT	900
GGAGCTATCT TTAACAGTTT CAGATAGGGT TTGTGCAGTA TGTAAACCAT TTGTAAAAAT	960
AATCAAATTA TCAAGTTCAG AAAGATAGGG ACAGAGTTCG TAGACAGTAG TACTAGAATC	1020
TAGATAGATA CACATACCAG ACCGAATAAA GTCTTTAGCG AGACTAGCGA TTAGTCTTTT	1080
TTGCCTAGTA CTTTCTCCTT CACGTATTTG ATGAGAAAGT TCAATTGTGT TCATAGAGGA	1140
CAGGGTCAGC TATCCGTGCT TTCTTTTGAT AAGACCTTGA TTTTCTAAGA AAATTAAATC	1200
ACGACGTAAG GTACTTGTGC TGGAGAAAGT GATTTCTGCC AGCTCTTTTA CGGCAATTCT	1260
TTTTTTCTTT TTGATAATTT CAATCAATTC AAGTACACGT TCATCTTTTA TCATAAGCTC	1320
CTCCTAATTT ATCATTTCAA CTATATTATA GCACAAATTG GAGGAATTTG AATTATTTTT	1380
ATGAATATTG GGTTAACATT TGAACATTAT TCAAGTAAGC GTTCACATAT TGAAAAAATA	1440
AAACGTGGGG ATTATAATAA AGTTAATCma GGACGAAGAG AGAAGAAAAA TGGAAGCGGT	1500
TTTAGCAATA GATTTAGGTG CGACTTCTGG AAGAGCAATC GTTGGTTACC TTTCTGAAAA	1560
TAAACTAGTA ATGGAAGAAA TAAATCGCTT TTCTAATCTA CCTATTAGAG TAAAAGGGCA	1620
TTTATCTTGG GATATTGACT TTCTACTAGC TAAAATTCTT GAAAGTATCC GCTTGGCTAA	1680
TACTAGTTAC AAGATTTTAT CTATCGGTAT TGACACATGG GGAGTTGATT TTGGACTGAT	1740
TGATAATGAA GGTAAGCTGT TATTACAACC TGTTCAATAT CGTGATGAAA GAACAAAGGG	1800
AGTGTTAAAG GAAATATCTG AAATGACTGA ATTAGAAAAA CTGTATTCTAG AGACAGGAAA	1860
TCAGATTATG GAGATAATA CCTGTGTTCA ACTCTTTAAG GCACGTCAAG AATCTCCTGA	1920
CTCTTTCTAT AAGACCAATA AGATTCTTTT AATGCCAGAT TTGTTTAATT ATCTCTTGAC	1980

644

AGGTAAGTTT GCTACAGAAA AAAGCATTGC TTCAACAACCT CAATTATTTG ATCCTAGGAG	2040
TCAAAATTGG AATCAGAATA TCTTAAAACT ATTTGAATTG GATTCATCTT TACTTCCTGA	2100
AATTGTTTCA GAGGGAAATG TTCTTGGAAG GATAAAAGAG GAGTATGGTT TAGGCGATAT	2160
TCCTGTTGTG AATGTTTGTA GTCATGATAC AGCAAGCGCG ATTGTCTCAG TACCTAAGAC	2220
AGAAGGTAGT TTATTTATTT CATCAGGTAC TTGGTCTTTG GTTGAGTGG AACTTACTTC	2280
ACCGATTCTT ACTACCGAAT CCTTCAGTTA TGGATTTACA AATGAAGTCG GTAAAGATGG	2340
AGTGATTACA TTTCTGAAGA ATTGTACAGG GTTGTGGATC ATAGAGGAAC TAACACGTTT	2400
ATTTGAACGA AGAGGGAAAG CCTATTCTTT TGATGATATT AGGACAATGG TGGAGAAAGA	2460
AAAAGAAAAT CTTCCTCTGA TTGATACTGA ATCAACTGAA TTTGCAACAG AATCTGATAT	2520
GCACAAGACT TTGACAGAAT ATCTAGCTTA TCATCATGAA ACTAGAGAGT GGACAGATGG	2580
ACAACTATTT AAGATTGTTT ATGAAAGCCT AGCTGAAACG TATAGGAAAG CGATAGAGTT	2640
ACTAGAAGAA CTAACCTATA AGGTTTATAA GAGGATATAT GTGATTGGAG GAGGTGCTAG	2700
AGCCAGTTAC TTTAACCAAA TGATTGCTGA TAGAACTGGT AAAGAGGTTT TTACAGGTTT	2760
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AGGGATGGAA GAGGCTCACC ATGTTATTGA GGAGTTTCTA CAATTAGAGA GTTATTACTC	2880
CCAAAAGAAT TAAAAAGATT GAGAGTTTGT AAATTTGCCT CCTCCCCCT TCTTAGCTTT	2940
TGTGCAGGAA GGGGGGATAA TTGGTGAATT GAAAAATATT TAGTGTTTTG ATATGAGGAG	3000
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AGATTTGACG AAAGGAACAG GTGGGAATCT CAGCGTTTTC GATCGTGAAA AACAATTGAT	3120
GGCAATTACC CCGTCGGGTA TTGATTTCTT TGAAATCAAA GAATCCGATA TTGTAGTGAT	3180
GGATATTAAT GGAAATGTTG TAGAGGGAGA ACGCTTGCCA TCTAGCGAAT GGTATATGCA	3240
TTTGATTCAA TATCAAACTC GTGATGATAT CGATGCAATT ATCCATGCTC ATACAACTTA	3300
TGCAACAGTA TTAGCTTGTC TCAGAGAACC ACTTCAGCG AGTCATTATA TGATTGCAGT	3360
GGCAGGGAAA GATGTTCCGG TAGCTGAGTA TGCAACATAT GGCACGAAAG AATTGGCTGT	3420
GAATGCAGCT AAAGCAATGG AAGGTCGTAG AGCAGTTTTA CTAGCGAATC ATGGAATTTT	3480
AGCAGGTGCA CAAAATTTAT TGAATGCATT TAATATTGTT GAAGAAGTTG AATATTCTGC	3540
AAAAATTTAT TGTTTAGCTA AGAATTTTGG AGAGCCAGTA GTTCTTCCTG ATGAGGAGAT	3600
GGAATTGATG GCAGAAAAAT TTAAACATA CGGTCAGAGA AAATAGGGAG GATATTAATG	3660
TTAAACATA TACCGAAAAA TATTTCTCCA GATTTATTGA AGACTTTAAT GGAAATGGGA	3720
CATGGAGATG AAATAGTATT AGCTGACGCG AATTATCCTT CTGCCTCATG TGCAAATAAG	3780

645

CTAATTCGTT GTGATGGTGT AAATATTCCA GAATTATTAG ATTCCATTCT GTATTTAATG	3840
CCATTAGATA GTTACGTCGA TAGTTCAATT CAGTTTATGA ACGTTGTTTC GGGTGATGAT	3900
ATTCCTAAGA TATGGGGTAC CTATAGACAG ATGATTGAAG GTCATGGTAC AGATCTTAAA	3960
ACGATTACTT ATCTTAGAAG AGAAGACTTT TATGAACGTA GTAAGAAAGC TTATGCTATT	4020
GTTGCTACAG GAGAACTTC ACTTTATGCT AATATTATCC TTAAGAAAGG AGTAGTTGTT	4080
GAAAGAGAAA ATGTTCAATA GAGGAATTTT AGTTGCCAGT CATGGTAATT TTGCTAGCGG	4140
AGCTCTCATG ACCGCAGAAA TGTTTGTTGG TGAGACAACA AATGATAGAG TTAGGACATT	4200
AGGTTTGATG CCTGGAGAGA ATATTGTAGA GTTTGAGCAT TATTTTAAAA ATCAAGTGGA	4260
TGAACTGTTA GACTCAAATC AAGAGGTTAT CGTTTGTACT GACTTGATTG GAGGAAGTCC	4320
TAATAATGTG GCTTTGTCAC GGTTTTTAAA TTTGGATTCA GTTGATATTG TAACAGGGTT	4380
TAATATCCCT CTCCTAGTGG AATTAATATC AAGTTATGAT TCAAAAATCA ATTTAGAAGA	4440
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ATCTCAGAAG ATAAAACACG ACAATCTATT TTAAAGATTT CTGCACCGGT AGGTTTAAAA	4680
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TAAAAATAAT TTAAGGAGGT ACAGTATATG CTATTTCACAC AAGCATTACT GGTGACATTA	5040
GTTGGGATTA TTGCCACTAT TGACTATAAT GGACCGTTAT TTATGATTCA CCGTCCGTTA	5100
GTTACAAGTG CAATGGTTGG CTTAGTATTA GGAGATTTCA CCCAAGGTGT TCTTATTGGT	5160
TCAGCTCTTG AATTAACCTG GCTCGGTGTA ACAGGTATTG GAGGTATATC TCCACCAGAT	5220
ACTATTTTCA GTGCGATTAT TGGTACTGCA TTTGGTATTT TATCTGGTCA AGGAGAAACT	5280
GCTGGTATCG CTATAGCAGT TCCAATTGCA GTTGCTACCC AACAGTTGGA TGTTCTTGCA	5340
AAAACCTTAG ATGTTTATTT TGTGAAAAAA GCTGATAATG ATGCTAAAAA CGGAGATTAT	5400
TCAAAGATCG GTTTTATCA TTATTCAAGT TTGGTTTAA TCACGTATT TAAAAATTGA	5460
CCAATTTTCC TAGCTATTAT GCTTGGAGGG GAATATGTGG CAGACTTGTT TGCTAAGGTT	5520

646

CCACCAATCG TTATGCAGGG ACTTAACTCT GCAGGTGCTT TACTACCTTC AATTGGTTTT	5580
GGTATGCTTT TAAATATGAT GCTCAAGAAA AATATGTGGG TATTCTTGTT GATTGGATTC	5640
ATTTGTTCTG TGTATGGAGG AATGTCAACC ATTGGGATCT CACTAGTTGG TATTGCGGTA	5700
GCATACTTCT ACGATATGAT TGGAAGCAAA CCACAAGAAA CAACTTCAAG TAGTGATGTT	5760
GAGGAGGATC TTGATCTATG ATGAATAATA AAGTAACTAA AGTTGAACTT AAAAAAGTTT	5820
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TTCTATATAC AATTCTTCCA GTATTGAAAA AACTATACCC AGACAAAGAT TCAGCTTCTC	5940
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GCCGCAAAAT GGAATGAAGC CTTGCCGATT GGGAACGGTC ATTTAGGTGG TATGATTTAT	6720
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GTTACGGATG GTGAAGTAAG TGTATTGGGA GAGACAATAG TTATTCGGAA TGCTACAGAG	7320

647

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CAGGAGCAAT TTAATAGAGT TGATTTTAAA CTAGACTATA GTAAAGGTTG TCTTAGCATT	7500
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648

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CATTATACTT ATACAGAAAA TTGGGATGAG AATACCCATG TTTATACCAT TACGGTTAAT	10680
CATAATGGAA TGGTAGAGAT GTCTATAAAT ACTGAGGGGA CAGGTCCAGT CTCTTTCCCA	10740
ACACCAGATA AATTTAATGA TGGTAATTTG AATATAGCAT ATGCAAAACC AACAACACAA	10800
AGTTCCTGAG ATTACAATGG AGACCCTAAT AGAGCTGTGG ATGGTAACAG AAATGGTAAT	10860

649

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CAACGTCTAT CTAATTTTGA TGTGATTCTA TATGACAATA ATAGAAACGA AGTTGCTAAG	11040
AAACATGTTA ATAATTTGTC GGGTGAATCT GTTAGTCTAG ATTTCAAAGA AAAAGGAGCA	11100
AGGTATATTA AAGTTAAATT ACTAACGAGT GGAGTGCCTT TGAGTTTAGC AGAAGTAGAG	11160
GTTTTTAGAG AATCAGATGG TAAGCAATCT GAAGAGGATA TAGATAAAAT AACAGAAGAT	11220
AAAGTAGTCT CTACAAATAA GGTAAGTCTA CAAAGTTCAA CCAATTATGA GGGTGTAGCT	11280
GCTTTAGCAG TTGATGGTAA TAAAGATGGA GATTACGGAC ATCATTCCGT GACTCATACT	11340
AAGGCAGATT CTAACGCTTG GTGGCAGGTC GATCTGGGAG AAGAGTTTAC GGTTCCTAAA	11400
GTTGATATTT ATAATAGAAC AGATGCCGAA CCTCAGCGTT TATCTAATTT TGATGTTATT	11460
TTTCTATCTT CATCAGGAGA AGAAGTTTTT AGAAGACATT TTGATAAAGT AGTTGATGGT	11520
TTGTTATCTT TAAAAGTACC TTCTGTAGGG GCTAAGCTAG TCAAAATAGA ATTAAATCA	11580
GCAGCTATTC CGTTAAGTTT AGCGGAAGTT GAAGTCTATG GTTCAAAGAG AACTCCGAAG	11640
AAACTTTCTA ATATTGCATT AACAAAAGAA ACTCGACAGA GTTCAACGGA TTACAATGGT	11700
TTTTCTCGTC TAGCAGTTGA TGGAAATAAA AACGGAGATT ATGGTCAICA TTCAGTGACT	11760
CATACCAAAG AAGATTCTCC TTCATGGTGG GAGATAGATT TAGCACAAAC CGAAGAATTA	11820
GAAAAGTTAA TTATTTATAA TAGAACAGAT GCTGAAATTC AGAGATTATC AAATTTTGAT	11880
ATTATTATAT ATGATTCAAA TGATTATGAA GTTTTACAC AACATATTGA CAGTTTAGAA	11940
AGCAATAATC TATCCATAGA CTTAAAAGGA CTGAAGGGAA AAAAGGTTAG AATTCTTTTG	12000
AGAAGCGCAG GAATTCCTTT AAGTTTAGCA GAGGTAGAGG TTTATACTTA TAAGTAATTT	12060
TAAAAATTAT CACCCAGGCT ACCGTAAATA TAATGGAGAT GGTAGTATGA AAGAAACAGA	12120
AAAATAAGAG GAAATAGTA TGATTCAACA TCCACGTATT GGGATTTCGT CGACTATTGA	12180
TGGTCGTCGT CAAGGTGTAC GCGAATCACT TGAAGTGCAA ACAATGAACA TGGCTAAAAG	12240
TGTGGCAGAT TTGATTTCAA GCACATTGAA ATATCCAGAT GGGGAACCTG TGGAATGCGT	12300
GATTTCTCCA TCTACTATTG GCCGTGTACC AGAGGCTGCA GCTTCCCATG AGTTGTTTAA	12360
AAAAATCAAT GTTTGCGCAA CAATTACAGT TACACCATGC TGGTGTTATG GTAGTGAAAC	12420
TATGGATATG TCTCCAGATA TTCCTCATGC TATTTGGGGA TTTAATGGGA CAGAACGCCC	12480
AGGAGCTGTC TATCTTGCA GCTGACTAGC TTCACATGCT CAAAAGGGA TTCCAGCCTT	12540
TGGGATTTAT GGAAGAGATG TTCAGGAAGC TAGTGACACA GATATTCCAG AAGATGTCAA	12600

650

AGAAAACTT TTACGCTATG CGCGTGCAGC TCTTGCAACT GGCTTGATGA GAGACACTGC	12660
TTACCTATCA ATGGGTAGTG TTTCGATGGG GATTGGTGGT TCTATTGTAA ATCCGGATTT	12720
CTTCCAAGAA TACTTAGGAA TGCGAAATGA ATCGGTAGAT ATGACGGAGT TCACGCGCCG	12780
TATGGACCGT GGTATTTACG ACCCTGAAGA GTTCGAACGT GCGCTCAAAT GGGTGAAAGA	12840
AAACGTAAAA GAAGGATTCG ACCATAACCG TGAAGACCTT GTTTTAAGCC GTGAAGAAAA	12900
AGATAGACAA TGGGAATTTG TTATTAAGAT GTTCATGATT GGACGTGACT TAATGGTTGG	12960
TAACCCAAGA CTTGCTGAAC TTGGTTTTGA GGAAGAAGCG GTTGGTCACC ATGCTTTAGT	13020
AGCTGGTTTC CAAGGTCAAC GTCAGTGGAC AGACCATTTT CCAAATGGGG ACTTTATGGA	13080
AACTTTCCTC AATACTCAGT TTGACTGGAA TGGTATTCGA AAACCATTTG TATTGCGAC	13140
AGAGAATGAT TCACTAAATG GTGTGTCTAT GCTCTTTAAT TATCTATTAA CAAATACTCC	13200
ACAAATCTTT GCTGATGTGC GTACTTATTG GAGCCCAGAG GCTGTAAAC GTGTAACGGG	13260
ACATACTTTA GAGGGTCGTG CTGCAGCTGG CTTCTTACAT CTAATCAACT CTGGTCTTG	13320
TACATTGGAT GGTACAGGTC AAGCTACTCG AGATGGCAAA CCTATTATGA AACCATTCTG	13380
GGAGTTGGAA GAAAGTGAAG TGCAGGCTAT GCTTGAAAT ACAGACTTCC CACCAGCAAA	13440
CCGCGAATAC TTCCGTGGAG GAGGATTCTC AACTCGTTTC TTGACGAAGG GGGATATGCC	13500
AGTAACAATG GTACGTCTCA ATCTTCTAAA AGGGGTGGT CCAGTGCTAC AAATTGCAGA	13560
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AGGATGGCCA ACTACTTGGT TTGCTCCACG TTGACAGGA AAAGGTGCTT TCAAGTCTGT	13680
CTATGACGTC ATGAATAATT GGGGAGCTAA TCACGGAGCC ATAACATATG GACACATTGG	13740
AGCAGACTTG ATTACCTTGG CTCTATGTT GAGAATTCCT GTCAATATGC ATAATGTACC	13800
TGAGGAAGAT ATCTTTAGAC CTAAAAATTG GTCCTTATTT GGAACAGAAG ATCTAGAATC	13860
AGCAGACTAT CGTGCATGTC AGTTGTTGGG GCCACTACAT AAATAAACT TGTTTATATA	13920
GGAGGTGAAC TTACGTCCCT CCTATCCTTT TAAAAAGATT TGTTAAACAA TTCACAAAT	13980
ATTGAAAACG AATACAAAA GTAATATAAT GATGTTAAAT AGATAGCGCG GAGGCGCAGG	14040
AGGAAAATTA TATGGCTATA TTTTATGTTT CGGCAGTCAA CCTATTGGA AAAGGTGTTG	14100
TAAATGAAGT GGTCTCTTAT ATCAAGGAAC TTGGCTATAA AAAGGCACCT TTGGTGACAG	14160
ATAAGTACAT CGAAGGCAGT GATATTTTAC CTAAGACTTT AAAACCACTG GATACAGAAG	14220
GAATCGAATA T	14231

(2) INFORMATION FOR SEQ ID NO: 82:

(i) SEQUENCE CHARACTERISTICS:

651

(A) LENGTH: 16995 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 82:

AGTTCTCTTA ACTTTTTTAG GATGGCATTC TCCGCTCTCA GGTACTCATT TTCTGCTgAA	60
GACGTTCTAA TTCTGTCTCT TCTTCAGGTC TCGTTTTTGG CTTACGTCCC ATTTTAGGTA	120
CTCTCCCTCT TGTTTTCTCA ACAATAGTAT ACCCGTTTTT CCTGTATTGT GCTAGCCAGT	180
TAAGAAGTAT CGTACGACTT GGGAGACCGT ATTCAAGAGA AACTCTATCT TTAGTCCAGC	240
CTTCATGTCA GACTTTATTA CTCATTTCTT GTTTTAAATC AGGAGAATAG TAACGATTTT	300
TTCTTTTTTT GACGAACCTT ATTCGTAAC GATCAATCAA TTTAATCATG TACCTAATAT	360
TAGAATGCT TATCCCAAAT TTATTTGAAA GCTTCTCTAA GCTATATCCT TGT'TTCTAA	420
GTTCATAGAT CTGAACPTTA TCATCATAAG TTAGTTTCAT AATAAAAACA CCCCAAAAGT	480
TAGATTTTTT CTGTCTAACT TTTGGGGTGT AGTTCATGTA CACCTGATAT GATGCGTTTT	540
ATAATTTTTA AGCCTTTTTG CCCAGCCTCG TCAAAAGTAA TGT'TTGACA CAAAATCTGT	600
GACAAAACCT TAGTTTTAAA GGT'TTTTAA TTTGTATATA CTAGTTTAA GAAAAGGAGG	660
ATGATCTAAT GGAAGAAAAA GTATCATTGA AAGTCAGGGT TCAAAAAC TA GGGACATCGC	720
TTTCAAATAT GGTATGCCC AATATTGGAG CATTTATTGC TTGGGGAGTA TTGACTGCCC	780
TCTTTATCGC TGATGGCTAT CTGCCAAATG AACAGTTAGC TACTGTTGTT GGTCCATATG	840
TAACGTATTT ATTGCCAATC CTGATTGGTT ACACAGGTGG ATATATGATC CATGGCCAAC	900
GTGGTGCCGT TGTAGGAGCT ATTGCTACTG TTGGTGCAAT CACAGGTTCT AGTGTTCTTA	960
TGTTTATCGG AGCTATGGTA ATGGGCCAC TGGGAGGATG GACTATCAAG AAATTTGATG	1020
AGAAGTCCA GAAAAAATT CGTCCCGGAT TTGAAATGTT AGTTAATAAC TTCTCAGCTG	1080
GTCTCGTTGG TTTTGCAATTA TTGCTTTTGG CTTTCTACGC AATCGGTCCA GTCGTATCGA	1140
CTCTTACTGG AGCTGTTGGG AATGGTGTG AGGCTATTGT CAATGCTCGC CTCCTTCCTA	1200
TGGCTAATAT TATCATCGAA CCGGCTAAAG TCCTTTTCCT CAATAATGCC CTCATCATG	1260
GCATTTTAC TCCTCTGGGA GTAGAACAGG TAGCTCAAGC TGGTAAGTCA ATTCTCTTCC	1320
TATTGGAAGC TAATCCTGGA CCAGGTCTGG GAATTCTATT AGCTTATGCT GTATTGCGTA	1380
AAGGTTCTGC TAAATCTTCT TCTTGGGGGG CAATGGTTAT TCATTTCTTC GGAGGGATTC	1440
ATGAAATTTA CTTTCCTTAT GTTATGATGA AGCCTACTCT ATTTTATAGCT GCTATGGCAG	1500

652

GAGGTATCTC TGGAACTTTT ACTTTTCAAC TCTTAGACGC TGGTCTTAAA TCTCCAGCTT	1560
CACCAGGTTT TATTATTGCG ATTATAGCTA CGGCGCCAAA AGGTGTTTGG CCCCATCTAA	1620
ATGTTCTTTT AGTGTTTTTA GTGGCAGCAG TTGTTTCTTT CTTGTAGCA GCCCTTATTC	1680
TTTCATGCAGA CAAGTCAACT GAGGATTCGC TCGAAGCTGC TCAGGCGGCT ACCCAAGCAG	1740
CTAAGGCTCA GTCTAAAGGT CAGTTAGTAT CAACTTCTGT TGATGCAGTT GTTTCGACAG	1800
ACTCAGTGGA AAAAATCATT TTCGCCTGCG ATGCTGGTAT GGAAGCTCT GCTATGGGAG	1860
CTAGTATTCT TCGAGATAAG GTTAAAAAAG CAGGTCTAGA GATTCCAGTA TCTAATCAGG	1920
CAATCTCAAA TTTGCTTGAT ACACCAAAAA CATTAAATTGT TACTCAGGAA GAACTGACAC	1980
CAAGAGCTAA AGACAAGAGT CCAAGTGCTA TTCATGTTTC TGTGATAAT TTCTTAGCGT	2040
CCTCTCGTTA TGATGAAAT GTAGCTTCAT TAACAGGAGC TTCTCCAATA GCAGAAATTG	2100
AAGGAGATAT ACCAACTTCA GCACCAGTAG ATAGTCAGGA AAGTGACCTT AACCATATTG	2160
ATGCTGTAGT AGTTGCTTAT GGTAAAGCAC AGGGAAGTGC AACTATGGGC TGTGAAACGA	2220
TTCCGGCTAT TTTTAGAAAC AAGAATATTC GTATTCCAGT TTCTACTGCC AAAATTTCAG	2280
AATTAGGTGA ATTTAATTCT AAAACATAA TGATTGTAAC AACTATTTCT TTACAGGCAG	2340
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AATGCTATTA ACCAAACGAG AAGAACAATT ATTGAAGGCT TTCCTACATG TAGGGAAGCT	2520
TTCAATGCAA GATATGACTG AAATCTTACA GGTTCATCT AGAACAATTT ATCGAACTTT	2580
ATCAGATTTG ACAGATAGCA TGGAGCAATA TGGARTCGAA ATAACGAAGC ATGGGAAATA	2640
CTATATTTTG ACTGGAGAGT TGGATGATTT GCCGACAGAA CTTGAAGTGT TAGTTGAGTA	2700
TAGTCCCAA GAAAGACAAG AGTTGATTAC CTATCGCCTT CTGACTGAGA GTGGTTTTGT	2760
CACCAATGAA GCATTGCAAG AGTGACGAA AGTCAGTAAT GTAACATTA TTCAGGATAT	2820
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TCGGATTTCT GGTGATTCAG TTGGTAAGAG AAGATTTTGG GCTATTTTAC TGACAACTG	2940
TATCTCAGTA GCAGATTTT CAACCGGTAA TTTGGGAGC TTTGATATT TAGAAGCAGA	3000
TAGAACTGGG CTGGCCAGTC AGATTGTTAA TAAGCAACTG TCAGGTTTTC CAGATATGGA	3060
TGCTAGGATG AAGATGTTT TTGCGATCTT GTTATCTCT ATAGGTCAGG AGCAAAACAT	3120
TGAAAATTCA CCTAATACTA GTAAGCAGGC TTTGGAAATT TCTCAAAAA TTTTCAAGC	3180
TTACTCTAAG CAGACTGCAC AATTTTATAG TATTTCAGGA ATTATCTATT TTGCGAGCAT	3240
CTTGGATGAA TTAATCATT AACGTCAGGA CAATCCGCTC TTTACGGAGA AATTGATGG	3300

653

TGAATTTTTC TACAATATTT CAAATCTGAT TGATACGGTT TCCATGTATA CCAAGATTGA	3360
CTTTTTTAAG GACAAGGTTT TATTCAATTT TCTTTTCCAT CATATTCGGC TCAGTTTAGG	3420
CGTCCCTATC CTTTTCAGG GTGAAAATTT GCCAGAACT ATCCAGATTT TAGTTGAAAG	3480
GAATAAATTT CTTTATACAG TCATCAGTCT TTTAGTGAAT GATATTTTTC CGAAATATCT	3540
TCATACAGAG TATGAGTATG GCATGATTGC CCTACATTTT ATCTCTAGCT TAGGCCGTAG	3600
TCCAGAGATT TATCCAGTCC GTGTTTGCT TTTAACGGAT GAACGTCGGG TCACTAGAGA	3660
TTTATTAGTC AGTAAAATTA AGAGTGTGC TCCTTTTGTA GAGTTGATAG ATATTCAATC	3720
TCTAGTAGAT TACCACAGTA TTGATCTCAG TCAGTATGAT TATATTTTAT CTACCAAGCC	3780
GCTGACTAAT CAGGAAATCG ATGTAATTC TAGTTTCCA ACCGTCAAAG AATTGCTTGA	3840
ATTACAGGAA CGACTTCAGT ATGTACAGGC ACATCGTACA ATTGTCGGC GTGATGCTAT	3900
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CATCCAATAT CAGAAGAATG TGAGTGACAG AGCTTACCTA ACAAGAAAAT TGTATCTCA	4080
CTTCCAGAAT AGTCCTATGG CTATTCCTAA TACTGGTCTG GTGCTTTTAC ATAGTCAGTC	4140
TAGCAAAGTA ACAACAAATA GTTTACTAT GTTTGAACTC AAATACCTA TCTCCGCATT	4200
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TATTTTTAAC GAAAAATTA AGAAATGGA GAACTAATAT GAACTTGAA AAACATTTGA	4440
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ACTTAGAAAT TATTCAGAAA ATTTCTATCT TCTGTGCAGA TGTAGATAAT GTTCTTAAAC	4800
TAGCAGATGC TCAGTCAAAA GAGGAAGTAT TCGCTTATT TGATGCTGTT GAATAATTGA	4860
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AAACATTCTG TTCATTTTGG TGCCGGTAAT ATCGGTCGTG GTTTTATAGG TGAAATTCTA	4980
TTTAAAAATG GTTTCATAT TGATTTTGTG GATGTCAATA ATCAGATAAT TCATGCTCTG	5040

654

AATGAAAAGG GCAAGTATGA AATTGAAATT GCACAGAAAG GACAGTCTCG TATAGAAGTA	5100
ACTAATGTGG CTGGCATTAA TAGCAAAGAA CATCCTGAGC AAGTCATTGA AGCGATTCAA	5160
AAGACGGATA TTATTACTAC TGCAATCGGA CCTAATATAC TCCCTTTTAT CGCCGAACCT	5220
CTAGCCAAAG GAATCGAAGC TCGCCGAGTT GCAGGAAATA CACAGGCATT GGATGTTATG	5280
GCCTGTGAAA ATATGATTGG CGGGTCTCAA TTTCTTTATC AAGAAGTCAA GAAATATTTA	5340
AGTCCGGAAG GTTTGACATT TGCTGATAAC TACATAGGTT TTCCAAATGC TGCAGTAGAC	5400
AGGATTGTTC CAGCACAAAG TCACGAAGAT TCCCTTTTGT TTGTGGTCGA GCCCTTTAAT	5460
GAATGGGTCG TGGAAACCAA GCGTCTTAAA AATCCAGATT TACGCTTAAA AGATGTGCAT	5520
TATGAAGAAG ATTTAGAACC CTTTATTGAG CGAAAACTTT TTTCAGTCAA TTCTGGACAT	5580
GCAACTTCAG CTTACATTGG TCGGCATTAT GGTGCCAAGA CAATTTTGA AGCTCTTCAA	5640
AATCCTAATA TTAAATCTCG GATTGAATCT GTATTAGCTG AAATTCGGAG TCTCTTGATT	5700
GCCAAATGGA ACTTTGATAA AAAAGAATTG GAGAATTATC ACAAAGTCAT TATAGAACGA	5760
CTTGAAAACC CTTTCATAGT GGACGAGGTT AGTCGCGTAG CTCGTACTCC AATCCGAAAA	5820
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GAAAGTATTC GATTAGGTGA ATTGTTGGCT AAACAATCAG TCAAAGATGT TGTTATACAA	6000
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TCGAAAATCT CTTCAAATCA GGTAGCATC GCTTTGTCTT AGGCATATGT TGTTCATCT	6120
ACAACCTCAA AGCAGTGCTT TGAGCTGACT CCGTCAGTCT TATCTGCAAT CTCAAAACAC	6180
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GGTAAAAGAA GCTGGACAAA AAGTCTTCAA AATCGGGAAG AGGCAGCCTA TCGGGTGTTC	6300
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GAGTTTGTGA TCAGCTTTAT GAGATAGGTC TTGCTAGAGA TGTAGCCCAT CATGTTATT	6420
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AGTTTGTGAA AATGACTAAC CAAAAGATAT CCAAAGTAGT CTAAAAATTG CTATACTTTA	6720
TGAGTGTTTT AGTTAGGAAA AAGGCTTGTG GTCTATAATT GTCTGCATTA GTCTAGATT	6780
TATTTATAGA AAATGTTATA ATAGACTGTA TTAAAAAAT TTAAAGGAGA AATGACAGAA	6840

655

TGCTCTGTATC ATTTGAAAAC AAAGAAACAA ACCGTGGTGT CTTGACTTTC ACTATCTCTC	6900
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AAGCTCTTTA TCAAGATGCA ATGAACGCAC TTTTGCCAAA CGCTTATGAA GCAGCTGTAA	7080
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656

GGGGTAAGA GACTTCATTA CCATCAAAAT CAATGACAAT CTCGTCTTGT TTCGATTCGG	8640
TGTATTTACC AGGAATCAGG TCTGTGATAG CTCCTAAATC CCCATTAAAG ACATTGATTT	8700
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CCAAGCGAGT CTGAGGAATC AAAGGAATAT GAAGTAGATC CGCTAGAACC TGTCCAGGAC	9120
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CTGTCAGGAT AAAGACCTTA TTCTGGATAG CATCACAGAT AGCCTGTTTT TGAATGTTAT	9540
CATACTCAAT TCCAGTTCTT TGCTCGACAG TAGTGATATG TTTTGAATG GTTCTAAAT	9600
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TTGAAAAGTA CTTGACCAAG CCCTTACTAG TTGGTTTTCG GCGATCATAA CCACTGATTT	10320
GCAGTTGTTT TCCATACTTG GAGTGCTGGA CAATTTGCCC CCAAAAAGTA TAGTCTTCGC	10380

657

CCTCAATTAC ATCAGCCATG GTTCCTGTGA CAATGATTTC AAAATCATCA AAATCCTCTG	10440
CGTCCGTATC GTCGATTTCCT AGGAGGAGGA TCGGATAAAA ATTGCTGGGA TTTTCAAAAA	10500
TAATCCGTTC AATAGTTTCCT GAAAAATAAA CTTCCATAAA ATTCCTTTGC ATGAATAGGT	10560
GAGAGTTGGG ATTGTTTTTA TTTTATACTC TTCGAAAATA TCTTCAAACC ACGTCAGCTT	10620
CCATCTGCAA CCTCAAAACA GTATTTTGAG CTGACTTCGT CAGTTCTATC CACAACCTCA	10680
AAACACTGTT TTAAGCAGCC TACGGCTAGC TTCTAGTTT GTTCTTTGAT TTTCATTGAG	10740
TATTTGTAAA TAAACAATCA CTTCTCACGA TAGAAGAAGA GGCTGAGATT GGTGATTCTC	10800
TGCCTCTTAG GTTTCTTAAA ATGTTCCGAT ACGGGTGATT GGCCATAAGC GGAATTTAGC	10860
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GAAGAGAATT TCGCCATCCG CTAGGGTCGG ATCCATGGAA TGTCCTTCTA CGCGAACATT	11340
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CAGTTCTCGT CCCAAATTTT CAAGATTTTC CAGAAAGAGA TCACGCGCAA TGACAGAAGA	11640
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CTCATCTGTC CCAATTAAAG GAAGATTTTG TCCGCTGGTT TGCTCTACAG CTTGATAGCC	12120

658

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AAAATTAGCG AATTTTGGTA TAATATCQTG AGGTGAATTT TATGGCAAAT CTAAATCGAT	12420
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660

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CATCTTGGTA ACTGG	16995

(2) INFORMATION FOR SEQ ID NO: 83:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 28473 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 83:

CCGGGGCTTT TGTAGTATAA TAGAGATACG TTTTGAAAGT AGGAGGTATC TATGGACTTA	60
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661

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ACAGGGATGA GTGGTCTGCT GACTCTACGT CAGGCAGCCA GTGACTTTGT TAAGGAAAAG	300
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662

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664

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ATCATTTTGA	AGAAAATAAG	CTGGTTAAGA	AGGGGGATCT	TTTGTTTCAA	TACCAAGAAG	7140

665

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666

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667

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668

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669

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670

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671

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672

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CTTGAAGCA GCCTATGCGC TAGCAGACTC AGCAGACTGC GTCTTGGAAG AATTTGTCAA	21300

673

CTTTGACCTT GAGATTTCTG TCATCGTGTC AGGAAATGGC AAGGAGGTGA CGTTTTTCCC	21360
AGTTTCAGGAA AATATCCACC GCAACAATAT CCTGTCTAAG ACCATCGTAC CAGCCCGCAT	21420
TTCTGAAAGT CTAGTAGACA AGGCTAAAGC TATGGCAGTG CGAATCGCAG AACAACTCAA	21480
CTTGCTCGGA ACTCTCTGTG TGGAAATGTT TGCACAGCT GATGACATCA TTGTCAATGA	21540
AATCGCCCCA CGACCACATA ACTCTGGGCA CTATTCTATT GAAGCCTGTG ATTTCTCTCA	21600
GTTTGACACC CATATTCTGG GTGTTCTCGG AGCACCATTA CCAGTCATCA AACTCCATGC	21660
GCCAGCCGTT ATGCTTAATG TCCTCGGTCA GCATGTCGAG GCTGCTGAAA AATATGTCAC	21720
AGAAAATCCA AGCGCCACC TCCACATGTA TGGTAAAATA GAAGCAAAGC ATAATCGTAA	21780
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GTTTGAGTAG AAATCTTGGT TTACCTAGAT AGCTTATTCC CAACAGCTTA AGAAGAAAGG	22140
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GAAAATAAAT ACCGTGCTTG GCTTGAGGTG GAAATCCTCT CTGACGAGGC ATGGGCTGAG	22260
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GACCTTCACG CTGAGTACTT TGCGGTCTT GCCAGCATTG CGACTTCAAT CGAACGTATG	22860
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674

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TCGCGGAGAG CATTATAATT AGCACGAAAG TAGTCTTTGT TGTGGTCTGC AAAGGCAGTC	24540
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GCTAGGTATT GAGGTGATGC GAGGTTATAT CCCACCAGC CTTTAGACCA GTAAGAAATC	24840

675

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676

AGACCGATAC CTTTATCTTT GGCATAGTTA ATCAGATCTG TCATTGACT TTCTGTTAAG	26640
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GAAAGAACAG TTACCTTATC ATCTTTAGCA TTGAAGAGTT CAATATCTGA AAACCTCTACA	28260
AGCTTGTGTT TGCGTGACG TGAAACGAAG GTTCCTTTTC CTTGTGGCG GACAATATAG	28320
CCATCTTTGG CAAGGTCGTT TAAGGCGGA ACAACTGTGA TAGAGCTGAC ATCGTACATT	28380

677

GAAATGAGTT CTGCTTCAGT GTAAAATTTA TCTCCACTGC TAAACTGCCC AGAGATGATT 28440

TTATTTTTTA ATTCGTCTTT TATGTATTGA TGG 28473

(2) INFORMATION FOR SEQ ID NO: 84:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 6749 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 84:

CCTGATGGGT GGTATGCGAG GATACAGTTC TGAAAATCGC CGTTACTTAA TTAATGGACG	60
CGAAGTCACA CCTGAGGAAT TTGCTCACTA TCGTGCGACT GGTCAATTAC CAGGAAATGC	120
AGAACTGAT GTGCAATGC CACAACAGGC ATCAGGTATG AAACAAGGCG GTGTCCTTGC	180
AAAAGTGGT CGAAACTTAA CAGCAGAAGC GCGTGAGGGC AAGTTGGATC CTGTTATCGG	240
ACGAAACAAG GAAATTCAAG AAACATCTGA AATCCTCTCA CGCCGCACCA AGAACAATCC	300
TGTTTTGGTC GGAGATGCAG GTGTTGGTAA GACAGCAGTT GTCGAAGGTC TAGCGCAAGC	360
CATTGTGAAC GGAGATGTTT CTGCTGCTAT CAAGAACAAG GAAATTATTT CTATTGATAT	420
CTCAGGTCTT GAGGCTGGTA CTCAATACCG TGGTAGCTTT GAAGAAAATG TCCAAAACCTT	480
AGTCAATGAA GTGAAAGAAG CAGGGAATAT TATCCTCTTC TTTGATGAAA TTCACCAAAT	540
TCTTGGTGCT GGTAGCACTG GTGGAGACAG TGGTTCTAAA GGAAGTGGCG ATATTCTCAA	600
GCCAGCTCTC TCTCGTGGAG AATTGACAGT GATTGGGGCA ACAACTCAAG ACGAATACCG	660
TAACACCATC TTGAAGAATG CTGCTCTTGC TCGTCGTTTC AACGAAGTGA AGGTCAATGC	720
TCCTTCGGCA GAGAATACTT TAAAAATTCT TCAAGGAATT CGTGACCTCT ATCAACAACA	780
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CATTCTCTCA CGTAGCTTGC CAGATAAGGC TATTGACCTT GTCGATGTAA CGGCTGCTCA	900
CTTGGCGGCT CAACATCCAG TAACAGATGT GCATGCTGTT GAACGAGAAA TCGAAACGGA	960
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AATGGAAGCT TCAGATATCG AACGTTTGAA AGATATGGCT CATCGCTTGC AAGACAAGGT	1200
GATTGGTCAA GATAAGGCCG TAGAAGTTGT AGCTCGTGCT ATCCGTCGTA ACCGTGCTGG	1260

678

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TCTCCTCCAA	GTTCTAGATG	ATGGTCGTTT	GACAGATGGT	CAAGGAAATA	CAGTAAACTT	1620
CAAGAACACT	GTCATTATTG	CGACCTCAAA	TGCTGGATTT	GGCTATGAAG	CCAACCTTGAC	1680
AGAAGATGCG	GATAAACCAG	AATTGATGGA	CCGTTTGAAA	CCCTTCTTCC	GTCCAGAATT	1740
CCTCAACCGC	TTTAATGCAG	TCATCGAGTT	CTCACACTTG	ACTAAGGAAG	ACCTTCTCTAA	1800
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GGTTCGTCCT	CTCCGTCGCG	TGGTTGAACA	AGAAATTCGT	GATAAGGTGA	CAGACTTCCA	1980
CTTGATCAT	TTAGATGCTA	AACATCTGGA	AGCAGATATG	GAAGATGGCG	TTTTGGTTAT	2040
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CCTACTCGAT	TTTAAATCAC	ATGACGTTCA	AAGGCATCAT	CTGAAATCCC	TTGTTCCAAG	2400
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TAAGCGGTCG	TATTGGTAGT	ATGGGTCAAA	GGTTACGTTG	ATACCCAGTT	TACGAAGGAC	3000
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679

GAGTTCTTCC ATAGCGCGGG CAGCATCAGG ATTTTCTGTA GCTGTGATAG CAAGTGCAAT	3120
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680

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ATGTAACCTA CAAAACCCCT GACCTCATGA GCCACTTTCT TCCTCCTCAT GAGGTCAGTT	6480
TTACTTTCTG CTGTTCCAGT ATCGTTTTTC CTCGCTAGAT TTCCTCAAAA GGGCAGACTC	6540
CTCCCTTGGT GCGTCACACG ATTTTTCAT CTCGACTGTT CTTTAATGCA TCATTAACGA	6600

681

CGCTTTTCTT CTAGGTGGTT CATAAGGAAC AGGAAGATTC AGGTTGACTT TTCTAATCCT 6660
AGAATAAAGT GCTGAAAACA ATTCGGAATA GGCATAGAGA CTAGACAATT TGAGGAGCTG 6720
CTTGCGTCCT GTTCGAACAC ATTTTCCGG 6749

(2) INFORMATION FOR SEQ ID NO: 85:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1842 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 85:

TCTACCCATG GACTTTGAGG CATTCAATTGT TCCATCTTCT AGTGGCGAAT CTTTGTATAC 60
AAACGATTCA ATTCACCTGG ATAGTGAAAC TCTCCCGCAA ACATTTTCTT GGTTAACTCA 120
ATCCAGCTGA TATTCTTTC AGCCAAAATA ATGGACAAGT TCTCCCAAAA TCGTTCAGCC 180
ATATTGCTTC TCCTTTAGTT AGATAAATAA TGTGTTTGGC CCATGTAAAT CAATTGTTTC 240
GTATCTCTTG GCAATAGAGC TCTAGCCTCT TCCAAATTCA GACTTGGATA AACTCGCTTA 300
TTTGAAACCG CAAGAGGAAG TCTGATGGTT AGTTCAGGAT TTTTAAAAT TATCTCAACG 360
AAATCCGTTA ATCTTAGATT GTCACGGTTC TTAAATCGTA ATAAATTGGG AGATAAAAA 420
TCAAAACAAT CTGAAGAATA GCTCATCATC TCAATTAAAT TGTCTTTGT CATTTCAGAA 480
ACTGAATGAC AAGATACCTC TATGCCATAG TTTTGAAGA AATCTAAAAG AAGTTGATT 540
CTTTGTCTAT TTTTACTTAG ATAGAGATCA ATCATGGGAG ACCTCCCAA GATTCCGGTC 600
CATTTGATAT TCTGACACGA TTAAGGAATC TAATAAATTA AGGAATCTAA TAAATTGCG 660
AAGTTAATCG GTTCTTGTG TTCATCATAA GCTTTTACAG TTAATTGGG TGTAAGTATT 720
CCCTCTTTTC CCTCGGCTCG ATAGCCTTGT CCATATAAAA CAAAACGAG ATTTTGATGA 780
TCATCTACAA AGGCATCAAC CCCATTCTTT ATGTCTTGAC TTTCAAGGAA TTCCATAACG 840
TTTTGAAGAT AGGATTCGTA AAATAGTGGG TAGTTATGTT TTTTATGGTA ATCATCTAAA 900
AATGTCACCT CAAACTCACA TGGAGAGTAA TTTTGACTTT GAACAGCCTA AAAGTGCCAT 960
CAAATTTGAA TTGAATAAAA TCAATAAAT AGCCCCATCC TCATCAATCC AACCTTTGCT 1020
CAAAGACAAC TCCAACCGAT CTTTAAAAC TGAGTAAACC ACCTTAACCT CCAGTTTCAT 1080
ATTCTTATAC CGTTCACCT CAAATAAAG TTTGGGGAGC TTATAATAAC GCTCTGATGT 1140
CTGATATTGA TTAGCGGTAA TACGCTTCAT TATTGTCCCT CCAAGACTAA AATTCCAACA 1200

682

TTTCCAAATT CATCAAATCG GATTAAACCT ACTTGTTCCA TTTCATCAAC TAACTGAGTT	1260
GCTTTTACCC AAATCATTC AACTCTCTC AACTAGATGT AACTTACAAA ACCCCTGACC	1320
TCATGAGCCA CTTTCTTCCT CCTCATGAGG TCAGTTTAC TTTCTGCTGT TCCAGTATCG	1380
TTTTTCCTCG CTAGATTTC TCAAAAGGGC AGACTCCTCC CTGGTGCGT CACACGATT	1440
TTTCATCTCG ACTGTTCTTT AATGCATCAT TAACGACGCT TTTCTTCTAG GTGGTTCATA	1500
AGGAACAGGA AGATTCAGGT TGACTTTTCT AATCCTAGAA TAAAGTGCTG AAAACAATTC	1560
GGAATAGGCA TAGAGACTAG ACAATTGAG GAGCTGCTTG CGTCCTGTT CACACATTT	1620
TCCCACCACG TGAAGAAAAA GATGGCGGAA GCGTTTGATT GTTAAAGTTT GGAAGTCACC	1680
TCCAGCTAGA TGTTTGAGAA AAAGATAGAG ATTGTAGGCG ATACAGCTCA TCATCATACG	1740
AACTTCGTTT TTGATTAAAG TTGAACTATC CGTTTATCG CCAAAAAATC CCTCCTTCAT	1800
CTCCTTGATG AAATTCTCGG CTGACCACG TCCACGATAA AG	1842

(2) INFORMATION FOR SEQ ID NO: 86:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 19390 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 86:

TCATCTTTAT CTCCTCGAAA TTTTCTAATA TAGCCATTAT AACAGAATTT TGTGAAAATT	60
CCTATTATAG TAAATCACTA TTTCAGTATA AAAAGAAAAA ACGAATCAGA CGATTGCTC	120
TTCTTAAAT CTGAAATAG CTTCCAGAA AGGATTAGCC GATTTTTTGC AGATTGAGCA	180
CTGCATCGTG ACTCATCAAG ACTTGACCAT ACTCTGTAA GACTGAGCGA CTGATATCAC	240
TATCGTCTGC AAATCGCGC ATACGGGCA ACAGCCAAGC TGGATATGGG CTGGATGAT	300
TTCAATATC CACTAAAATG GTCAAATAAT AGCGCTCGTT CATTTGTAG AGTTCAGAAG	360
TTTCCATTTC AAAAGTCACT GTCTGGCAA AAGCTACCAA GTCAGCCAAC TTAGCAAAG	420
AAAGGATGTA GTAGATGTAA GGTCTTTCT TACTCTCAGC TTCTGTGTC GCCTGCTCTT	480
GCTCTTCTTC CTTGACTTCA ACTTGCTCAA GAGATTGAAT GGCTTCGATA TCATCCTTGG	540
TTTGTCTGC GATGCTTTT TCCAGGGTTT TGATAAATC ATCTGGAGAC ATTTGAGCCA	600
ATTCTTCCAT ATCTGGCAA TCCGATAAGT CTTCAAAATC TAGATTTTGG TCAATCTTGG	660
ACTTGGTCAC AAAGACATCT ACCTTATCAG GTTTTGGAGT CACACGGAAG CTCAACATGC	720
CTGTATCCAG AAAGCTATCA GGCATCTCTA GTCATCCAA GATAGCATAA AAGAACTCTT	780

683

CTGTTTTTTC TTGAGGAACG AGAAAGTCAG CAATCTCCAT TCCACGATCC ATCAAATCCT	840
CTAAAGATAT CGTGATTTTT AAAGTTGTAT CACTAATTG TTTCATTTTC ATTGCTAGTA	900
ACCTCATACT TTCAGTTCTA TCTATTATAC TAGATTTTTC CGATTTTATC AAAAGAAGGC	960
TCCTCTATAC GGATAGATTT TCCCTAGGGT CTTTCTATAG GAGACTCCAA AAGAAAATTT	1020
CTGCAGACAG ATAGAAAAAG CCTTCAAAAT CGGCTAAGAG CCGACTTTGA AGACCTTATA	1080
CATCAGAATA CTTATAATTT AAAGGTTGCT ACACCGAGGA TAGAACGATT TAAGTTTCTG	1140
AGAATTTGAA GACTTTGCTC AAATTTCTTA TAACGAGTCA CTCCTGACTC TTCAACAAGA	1200
AGGACTGTAT CTCTTTCCAA AAGAGATGAT ACATCCTGTA AATCTACAAA ATGCATTCCT	1260
TTTAAAGCTT CTTGACTCTG TTTCATTTA TCTAAGATAG CTTTATTGTA GCTAACGATG	1320
GTCAATTCCT GTCCAGTATT TTTGTATGAC AAAACATCTG CTAGGTTAGC AATTGTTGTA	1380
ATCTCTGTTA CAAAATCAAT TTGATACTGA GAAAAATCAC CTACTCTATT GATTGTTGGA	1440
TTAAAGAGAT AAACAAACAC ATTTCCCATC ACAACCAAAA TCACACAAAC CACTCCAATA	1500
ACAACATAAC GAAGAATCAG ATTTTTCACA TTTAAGCCAA GCGCTGTTTC ACCATTTGCG	1560
TTCAATTCTT TAGAGTTGAT GGTTCACAGT TTTTCAATTT TCACATTTGC ATAGGCATGT	1620
TTAATTTTCT CAATCAACCC ATCAATTTTT TTCTCTAACA AGTTATTGGC ATCTTTACTT	1680
GATGTCAAAA TTTTCACACC AACCCCTGCA TCGTCAATCA TATAGTAGAC GGTCAATTTT	1740
TTCCACCAAT AGTCATTTCG TGAATTTTTC AAGGTTGTTT CTGTCGTGTC TAATTCACTG	1800
GCAATTTTTT TCAACTCACT GGGTTCTACA TCATTGAAAA GATAAGCTCC ATTCAAATTA	1860
CCATCAATCA ATTTCCCAT AATCACTA TAACCACCAA TTTGATGATT CAAAATCGTT	1920
TTGTCCGACT CTTTGGGAG AGTGATTTTA TAGATAAGAT AAGTTGAATA ACTTGTGTA	1980
TCCTTGACAG TGTTTTTATT CCTAATGCT TTAATTGTAA ATGGTACAGC AATGAGAGCA	2040
AATAAAGCGA TGAGAGCTAA AATATTTGCT TTTGCTTTT TATAAAGATT TGCAACAAA	2100
TCAGCTACTG AATAATGTTT AACATGATT TTTTCTCCT TTGTTTAGTA GATACTAGTT	2160
TTCTTTTGTA AGCATTTTTC CTACAAATAT AATCACAAGA ACAATTCCCC AGAATTGCAT	2220
TGTAAATAAA TTGAAGAAAC TTTCTGAAAA GCTGCTTCTT GGCATAAAGA ATAGATTATT	2280
CAAGATGAGT AGGGATAAAG CAAATAGGAT TGTCTTGAG CGATAGGCTA CTGTCAGCAT	2340
GGCTATAAAT AATACGCCGA GTAAGAACT AAGCAGAAAG ACTCCAATCA TACCATAGTC	2400
GGTATACAAC TCCATGATAT AACTACTTCC GATACCATGC CCTTCAAGT ATTCCTTGTT	2460
CAAGACAAGA TAGGATAGAT TGTGGGCATA ACTATTACTA TCAATAGCTA GTTCCACACT	2520

684

ATTGGTTGTA TGTTCAAAGG CTTTTCCTCC GAAAATGGCT CCCAAACTCC CCCTTGCAAA	2580
ATAATCAAGA ACAGGACCAA AAGTAAATTT ACGGAAATCT CGGTAAGGGA GGCTACTGTT	2640
AAATAGAAAA CCTCGAGCCA GAACACCAAA ACTAGTCCCT TGTTTATAGA TAAAGTCAAG	2700
TAAGATATCC CAGAAACCTG TATGGGAAAC TTGGACATTA TCCCGTACAT AATTGAGTAC	2760
TCCCATCGCT AACATGAGAA TAGGAGAACC TACAAAAATC GCTAACTTTT CTTTAAACCC	2820
AATCCATTTT CCTTTTTCAG TTTGCTCCCG CATAAAGTAA TAAACAAAAG CAAATmAAAT	2880
ACTTAAAAATA AAGGGATTTC GTGTCCCAAT TGCCAAATGA ATAGTATTAG CTGCAATAAA	2940
GGAGACAAGC ACTGCTGTGG CCTGCAATTT CTTTGGCTTG GTTGCCAGAT ACATACACAT	3000
TGCATAGACC GTAAAGGTAG ACAAAATGTA GGTAATAATA GGCAGTTTAC TTTCAAAATT	3060
TGCATAGTAG GCATAGTAGG AAGTCTGCAA ACGATACAAG AGCCGTTCAA ATAACCGAAT	3120
GAAATAGAAA GGATAAGTTA GAAGAAAAAC TCCTAGTGAT ACAAAGCGTA ACCGCTTGAT	3180
ATAAACCTCT TTTAGAGAAT TTCCTATATT TGCTACTTTT ATTTTCTTCC TAGCTATGAA	3240
GTACGAGGCC AGAATGCCTC CTGTGGTCAA GCCCAGAATC GAAATCATGA CAACTATAAA	3300
GGCAAAACGA TAGGCTATTG GATGATAGGT ATCCAAAGCA CCATCCCTAA AATAATCAAT	3360
GGTCGGTCTT GATACCAGAA ATACAAAAT GGTTAAATAG AAAATAAAAT GGATTAAGTA	3420
ATACTTGATA TCATTCCAAC AAGCAATTAA GCTACTAACC AACAGAACA ATAAAGTAGA	3480
AAGTAAGCTA ACATTATTAT TATTAAACAG ATACACAATT CCACTTACTA GCGTCAAGGC	3540
ATAACTGACT ATGGTCAAAC TAAATAATAA TCGTTTCCCA TCAATCACTT GGTCACCCCC	3600
GTTCTAATGT AATTTTITAG ATTTTTCAT ATTTTTCAGT AATAAGAATC GATATAAGGA	3660
AATATTTATG AATAGGGCCA AAGCACTAAT TCTTCTCCCC TTACGGAAAA TTGGATTCCCT	3720
AGAAATAGCA AAGGCATGGC CTTTFAAAAA ACGATGAATC TGAGAATAGG CTTCAAACCTG	3780
TTTATACTGA TCATCTAGCA ACATCTTATC CAGAATAAAG AAGTGGGCAT AGGCCAATCT	3840
GAAAAAAGCG ACCTCTTTCA AGTCAGGATA GTTTTTCACA ACTTCATTAT AAAACTTTTG	3900
GTAGATATCA ATATAGGCTA AATCCTTCTC TGCATAGGGT TTGGTCGTAA TACTATCCCC	3960
TCTATGGAAA TAGTAATAAT AGGGTTTAGT ATTAACCACA TACTTCTTGG CCAACTTGAT	4020
TAAATCAAAA TGGTAATAGG CATCTTCGTA AATCAACCCC TTAGGAAAGG ATAGGGCAGT	4080
TGCAATCTGT CTCTTGATTA GCTTATTGCA AATCGTCCCA GGTATTTTTT CACCTATGAG	4140
GTATTCCTTT AGAAATGTTT GAGAAATACA GACAAAATAG TCATCCTGAT TGGCTGACTG	4200
TGGGCTTTTC TCATTAGCAT AGACATTCAT GACACCACAG CTCGAAACAT CCGCATCTTC	4260
TTGAACTAAT TGCTCATATA AGCTCTGAAT CATTTCTGGA TGGATATAAT CATCTGAGTC	4320

685

AATAAAAATC AGATAATCCC CGTGAGCCTG CTTCAATCCCA TCATTTTCGTG CTTGCGACAA	4380
TCCTTCGPTC TTTTATGAA GCACTGACAC CCTGTCACTT TGTTCAAGCA TTGAATCACA	4440
CAAGCGACCA CTTTCATCTG TTGCACCATC ATCAACAAGA ATAATTTCCA GATTTTGATA	4500
GGTCTGCTTC TGAATGGAAG CTATCGATTT TTCTAGGTAC TGCGCCACAT TATAGACTGG	4560
CACAATCACA CTAATTAATG CAGTTTCCAT GCTACTCCTC TAATAGTTTT TCTACTTGTT	4620
CGATTTGTTT TGTAATTGTA AATTGTTGAA TGAATTGGCT AGCCTCATCG ACATCAAAGT	4680
TTGAGGCAGA AGTCATGTAA TTAGTAATCG CCTGAGCTGC CTCTTGATTG CTCTCAATGA	4740
TTTGTCCAAA TCGTCCTTCT TGGGATAATT CCTCAGCCCC TCCAACGTCC GTAGAGATAA	4800
AAGGGAGTCC CAGACTCAAG GCCTCCACAT ACACTCCAGG AAAACCTTCT TGTTTAGACA	4860
TAGACAAAAG AACTTTCGTC TGAGATAGAT ACTGATAAGG ATTTTTTTGA TAACCAAGGA	4920
AATGTACATA GTCCTCAATC CCATACTCTT TGACTCGTTT TTTCAGTTCC TCTTCCATAT	4980
CACCAGCCCC GATAAATAG AGATGATAGT TTTTCCCTC TTGGTGAAT AATCGTATCA	5040
CTTCCACTAC ACGGTCAGAA CCCTTATTTT CCTCAATCCG TCCGATAGTA CAGATACTTT	5100
GAGGAGCAAT CTCGATATCG ATCTTCTCTT GAGATTTTTC TAGAATAGTC TGAAAATCAT	5160
ATCCATTGTA GATTGTCTGT AATTTAGAAG TATAATCTGG ATAACTTCC TTGATAGAAT	5220
TGCTGGTCTT TTTTGAAATC CCTACAATG TATTCGCAGC ATCCAACCTG CTCTATGTG	5280
ATTCTCTTTT AGAGCTATCC TTAAGAAGTT CTTCAATACT TCCATGAATC CAAGATATCT	5340
TCTTGACTTC TCTTCTTTA GAGAACAACA GTGGTGGATT CATAATGGTA AAAGAACTT	5400
CAACATCATA ATCATCTTTT ACAAGCAAAC GACGAGTCAG TCTTGAAAA TAAATTCTCA	5460
TTCTCCACAA AAAAGCTCGT AACCATCTGG TTTGGCGATA ATCTTGAAGG GATTTTAAAA	5520
TGCGTACATG CTTTGGAACA GATTCATATC CCTTGTCAA GTGCTCCATT TCAAGAATAT	5580
CAATATCATA CTTTCTGGA TCCAGATTTG AAACAATGGT TGATAGAATC TTCTCTGCAC	5640
CACCTCCAAG AGAAAAAGAC CACATAAAAA ATAAGATTTT TTTCTTAGCC ACCATATTCT	5700
CCCTTGATTT CTGTATAAGA CTTATCCATA TCAGCGATGA CAGCATCATG ATGCGGTACC	5760
TGCTTGCTCTG CTGGTGGAGG CGTCATATAA TCCCCAAAAG CAGTTCTGAG ATAGACATCA	5820
TAGCCGATTG GAATAGGCAT CTCTGTTTCT TCAAATGGCA AGAAAAGATT GTCTTCAAAA	5880
GATGTGATTG GGTACTTGT TCTCATGTAG CCAGGACCTG AGCATAATTC TGTAATGCCA	5940
TCACAATCAG CCAAATCATA CTTAGTCATT TCTTTCTCAG CTTTTTTCCA GATGCGATAA	6000
CGGAGAGATT TTGGAGTCAA ACCCAGTAAA ATGCGACTTC CCCATTTTCAT GAGATCACCA	6060

686

TGCTTTTCTG GAATAGTTTG CGCACAAAAG AGTGAATAAA TCAAGGCCCA ACGAACCTGT	6120
TTTTTCCGCT CAGCTGGATT TTTCGGATAA TAATCCAAAG GCAAAACATC CAAGGCCAGA	6180
CCATGTGGCA AATCCAAATC CTGCTGATAA GGCTTGATAC AGGTGGTTTT CTGTACACGA	6240
ATGGTAATAA AAAGATTACG ATCAACAAAA TCCTTGAGAC TCTTTGACAA GAAATAACGT	6300
TCATCTGCAT AACGAGGCCA TAATTCTGCT AATTCTCAT AATCTTTACG AGGCATAAAA	6360
AAGTCTAGGT CGTCGTCCCA AGGAATAAAT CCCTTGTTTC GAAGGGCACC AATAGCGCCT	6420
CCGCCACAGA GATAACAGAG CAAATCATGT TCTTTACAAA AGGCCACAAA ATATTCAGCC	6480
ATCTCCAGAC TACGAGCCTG AATTGCTTTT AAATCAGTCA TATTGTTTAT TATTCTTTCT	6540
ATCGTATCGT TTCATTATAC CACAAACAAG GGGTGAAAAT CTATTGCAGA CTGTAAAAAA	6600
TCAAAGCCTG ACTGCTATCC AAATAGCTAT CAAACTTTGA TTTTCTGTCT TTATACTCTT	6660
CGAAAATCTC TTCAAACCAAC GTCAGCTTCA CCTTGCCGTA GGTATAGGTA ACTGACTTCG	6720
TCAGTCTTAT CTACAACCTC AAAACTGTGT TTTTAGCAGC CTGCGGCTAG CTTCCCTAGT	6780
TGCATTTTGA TTTTCATTGA GTATTATCTT ATCTTAAGCC CATTTGAGCG AGCTTGTTTT	6840
GATATTTGTT TTGATCAACC AGCAGGCCCA AGCCCCATA AACATCATAG GCATCTACCC	6900
AGTCACCCAG TTCTGGAATC GTCAATTTTT CAATACCATT TTTTGCTCCA TCCAAAACAG	6960
ATAAACCGTT TGTTAGGAGG AAAGTATAGG GTACGTTGGT TGAGGTCATA GCAAAAACCT	7020
TTCCAAGAGC TTCAGAACCA GTGAAAAGTT TAGTGGGATC TTTAATTTGC TCTAAAATTG	7080
CTGTTAAAC TTGTGCTGT CTTTTGTAC GGCCGTAATC TGCCTCATCA TCATCACGGA	7140
AACGAGCATA ATTGAGCAGG GTCGAGCCAT TCATCTGCTG TTTTCCGACT TTAATGGTTT	7200
GGGTTGGAGA CTCAGTCTCG GTAGCGTATA AATCATCTCC GACTGTAGCT TCTGTTAGGG	7260
GACGCCCATT CAATGTTGAA AATTGAGCAT CAATCGTCAC CCCATCAGGG AAAAGCGTGT	7320
CAATCGCTGT GGCAAAGGCC TGGAAATCAA CCAAGGCGTA GACTTTAATG TCCAAGTCAA	7380
AATTATCTTT CAAGACTTGG CGAACCATT TCGCCCTTT TTGCCCCCT TGTTCCTCTA	7440
ACTCGTAGGC TACGTTTAACT TTGTTATCTG TCTGTTTCT ACCATTAATC ACTTGACTAT	7500
AACCATCTAT ATAGACCAAA TTATCACGCA TGAAACTGAC TAGCTTCATT TTCTTATCTG	7560
AGCCCCGAC ATTTAATACC ATAATAGAGT CAGTTCGTGT CTCAACACTG TTCTGGCCGA	7620
TTCGACCATC AGTACCATG ATTAAATAT TAACTCCATC TCTAGTGCC TGACCATTAA	7680
AGACTTCTAC TTGAGCTGCC CGGGCATCAG CAGTTTCTT TCGCTAGCA TCTTGTTAAC	7740
CACGCAAAAA CATGAATACC ATGGCCAAAG CCACACAGAC CAAAAGTGAA AAAATCACCA	7800
TAAAAATTCG TTTAAGACGG AGCTTCCGTC TTTCTTTTT TGGAGGGAAA GAGAGTGCTT	7860

687

GTGATTGGA TTGTGAGCGA CTCGGTTCG CATAGCTTGG TAAGTCAACC TGCTCTTCTC	7920
TTTCTTGTTT CAAGCTAGAG CTACTATTTT CCCTAGCAAG AGTTAGCTTT TCTTGCAAAT	7980
AGGCAAACCTC ATTTTTTTCT CTCTCATTGA GATAGTGAAT ATTTTTTAGC AAATAATCAT	8040
AACGCAACTG CTCATGATGA CTTAAGGGAT TTTCTTTACT CATCTTCTCT CCTTTCCATG	8100
GTCTGATATT GGATAAATAG GATAGGCACC CAGAATTTTA TACTGGATTC CAATCGCTTC	8160
TAATTCTTTT TGGGCAAAGT GGACCAAGTC CTTATCGGTA TAATCCACAT CGATAATGAA	8220
AAAGTATTCA CCCAGTGTG TCTTGAGTGG ACAACTTTCA ATTTTGTGCA AGTCAATTCC	8280
TCGCCAAGCA AAGGTCGACA GGGCCTTATA AAGTGCACCT GGAAGGTTGT CAGGTAATGT	8340
CAAGGCCAAA CTCATCTTTT CAGTTTGTGC TTGCAAGGGA ATACTAGGCT TTTCAGCTCC	8400
TAGAACCAG AAACGTGTGA AATTGGCTTC CATTTCTGTA ATATCCTCGG CAATCAGTTC	8460
CAATCCATAT TCTTCAGCAG AACTTCTAGG TGCAACTGCT GCAAAGGGCT GGTCTGGATG	8520
TTCGGAAATA AAACGGGCCG CATAAGCTGT ACTAGCTGTT ACCTCGATTT GAGCCTCTGG	8580
ATATTGTCA TCGATGAATT TCTTTCCTTG AGCCAAGGCC TGTGGATGTG AAAAAATCTT	8640
TTCAATCTTA GTATGGCCTG GAACCAACAT CAACTGCTGA TGAATAGGCT GAACGATTTT	8700
TGCTACTGCT TGGATGTGAG CCTGATGAAA AAGATAGTCC AAGGTTTCAT GAACACTACC	8760
CTCAATAGAA TTTTCAACTG GCACCACAGA ATAGTTCACT AATCCTTGCT CATAAGCCTT	8820
GATGACATCT GTAATGTTGG CAAAAGCCTG CAATTCCTCA TGAGGAAAAG CTGTCTGCAC	8880
AACGTGGTGT GAAAATGATC CCTTGGGACC TAGATAAGCA ATTTTCATCT TAGTTCCTCT	8940
ATAATTTCTT CTGGGCTTAG CTTGGTCACA TCCAAAACCC GACTAGCCAC TTCCTCATAC	9000
CAAGCCTGTC TTTCTTGGA AATAGCTACT AGTTCCTCCT TGCTATTATT TAGAAAAAGC	9060
GGTCGCTGAT TGTCCTTATC AGCTGCGATA CGTTGGTAGA GGGTTTCAAA ATCTGCTCTC	9120
AGGTAGATGT TATCTGTATT AGTCTTGAGT AAGTCACGAT TTCTCTGAGA AATAACCACT	9180
CCTCCTCCAG TTGACACGAC TTGGTCTGTT TGTAGTAAAT CAGCTAGGAC TTCTGATTC	9240
ACCTGACGAA AGGCTGTTTC TCCCTTTTCA GCGAAAAAAT TCGCAATGGA CATACTAGG	9300
CGATTCTCAA TCAGAGCATC CATATCAAGG TAATTAGGGT CCAAGCCTCT TGCAATAGTC	9360
GATTTTCCAG CCCCATAAA CCCTAATAAC ACCTTAGCCA TGAATCAAGC TCTCCAAATC	9420
ATCAAAGAAA CTAGGATAGC TGGTATTGAT GGCTTCTGCA CGGTCAAGCT CCACCTCTCC	9480
ATCTGCAACC AAGAGGGCTG CGATAGCTGT CATCATGCCG ATACGGTGGT CACCAAACGT	9540
ATTGACTCTA GCACCGTGAA GAGCTGATTT TCCTTTGATA ATCATCCCAT CTGCCGTAGG	9600

688

AGTAATATCT GCTCCCATAC TATTTAAGGC GTCTGCCACA ACCTGAATAC GGTCTGTTTC	9660
CTTGACCTTG AGCTCCTCAG CATCCTTGAT AACTGTTACA CCTTGGGCTT GGGTCGCAAG	9720
CAGGGCAATA ATGGGCAATT CATCAATCAA TCGTGGAATC AAAGCGCCAC CAATCTCTGT	9780
TCCTTTCAAG TCAGAAGACT CAACAATCAA GGTAGCAGAT TTAGCGACTG GATCGATTTT	9840
AGTTATTTCC AATTTTCCAC CCATGGCAGC AATGACATCA ATAATACCGG TGCGAGTTTC	9900
GTTGATCCCC ACATTCTGCA GCACTAGACG AGAATTGGA GCAATCAAAC CTGCGACTAA	9960
CCAAAAGGCT GCACTGGAAT TATCTCCTGG TACGACCACC TTCTGTCTCTG TCAATTTTTC	10020
TGGCCCTTGG ACTGTGATTT TCTTACCATC CACACTTAAA TGACCACCAA ATGTGTTCAA	10080
CATATCTTCA GTATGATTAC GGGTGACTC TTTTTCGATA ATAACGACT CCCCCTTAGC	10140
TTGTAAGGCT GCAAAACATCA AGGCTGACTT GACTTGGGCA GAGGCAATTG GCAACTCATA	10200
ATGAATAGGT CTTAGGTTTT TCGTCCCTTT TAAGCGAAGG GGAGGCAAGT CTCGTTCACT	10260
TTGCCCTGAA ATGCTGACGC CCATTTTTTT CAGTGGAAGG GTCACACGGT CCATAGGACG	10320
TTTGAAAGA CTATCATCTC CAAACATCTC TACTTCGAAA TCTGCACCAG CAAGGACACC	10380
TGAAATCAGG CGAATCGAGG TGCCAGAAAT TCCCATATTA AGGGCATTTC GTGGCGCTTT	10440
TAAGCCAGCC ATGCCTACAC CTTGAATGGT AATAACCCCA TCTTTATCCT CAATTTCAAC	10500
ACCAAGGTCA CGAAAAACCT GCATGGTCGA AAGAACGTCT TCACCTCGCA GAATATCATA	10560
AACCTTGGTC TCACCTCAG CCAAACTTCC AAAGATAATG GAACGGTGGC TGATAGACTT	10620
GTCACCTGGG ACGCGGATAC TACCATGTAA ATGGCGAATG TTTGTTTTTA GTTTCATACT	10680
GGACCTCATA CTTGCAATAC TTTTACCTAT TTTATCATAA AAAGCCAGAA ATTCCTTAAA	10740
AATTCCTGAC TTTAGGATCG TTCTTTTCTT ATTTTCAGCA TTCTGAAACT GGTTCAAAAA	10800
CAATTTTTTC AATATCAGAA AGGTAAATGG CCAATTGTTG TTGCTTGGA AAGAATTCTG	10860
ACAAGAGGCT ATTTCTTGA ATCTGTTTAC CAAAGCCTTC CATCTTAGCT TGAAGGACG	10920
CATCTGGCAT TTGACCTGTC TGTGCTAGTT TTTGAATTC CTCTTGAAAG GCAAGATAAT	10980
CTGTAAAGAT TTTGCTTGCC TCAGCATCTG CTGCAATCGC ATCTTTAGCT GCTTTAACAG	11040
CCTTGATATC TGGTAATCCG CGTAGACCGC GACTGAGTTC GTTTGCACTA TCGTAAATAT	11100
TTGACATGTT CTTCTCCTTA TTTGATGACG ACTGTATAGT CAGTATTTTC TGTATGAGA	11160
TGCTCAGCTC TTTCCAAGTC TTGAGCATTT TTAAATGAAA TTTGTAGGAT TCCGTGAATA	11220
TCCTCACGAT TTTCTCTCGT GATGTGGATA TTAACCAAGG AAGTTCCACG TAGCAGTTCC	11280
AAAATCCGGA GGATGACATC TTCTTCATCA GGAACGTCAA CATAGAGGTC GTAAGAGCTA	11340
TCCACACCAC CACGCTTATG GATTTCATG GTCTGGCGTT GTTCACGCGC TTGGTTAAAA	11400

AAGTTCCAAA TTTGCTCTTC ATCTCCCTTA CTAATGGCCT GACCAATCGC TTCCAAACGT	11460
TCCTTGAAAT CCTCAATTCT ATCCAGAATG ATCTCGCTAT TGGACAAGAG AATGGAGGTC	11520
CACATTCCCTG GCTCGCTTTC CGCAATPCGG GTCATATCTC GAAAACCACC TGCCGCAAAG	11580
CGCCTTGCCA TCTCATGCTC TTGAGCATAG ACCGCAGTCT GCTCCATGAG ACTAGAAGCC	11640
AAAATATGAG GAAAATGGCT AATCTGAGAA GTGACACGAT CATGCTCCTT GGCATCAATC	11700
TCGATAAAAC GAGCATGAAG ACCTGAAAGC AGATCCTTCA TTTCTTAAG CGTGCTCTGA	11760
CTTGTCAGGC TTGAAGGTGT AAAGATATAA TAGGCATTTT CAAAAGATT GACATCTGCC	11820
GAGCAGCCC CTGTCTGTG ACTACCAGCC ATGGGATGGG CCCCGACAAA GCGAACAGAC	11880
TTGCCAGCCA AATACTGCTC CGCCGCATCC ACAATGGTTG ACTTGGTCGA ACCAGCATCT	11940
GAAATAATAA CGCCTTCTCG CAAATCCAAA TTGGCCAACT CCTTAATGAA AGCAATAGTT	12000
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TCCGTTGCAC GGTCAATCAT ACCTTCTTTC AAGGCGATAT CTCFCGAAGC TTGACTACGA	12120
TTATAACCTA AAATTTTATA ATCTGGATGA TCGCGTTTGA TACCAAGTGC CATAGAGGCT	12180
CCAATCAACC CAAGACCTGC GATATAGATT GTTTTTGCCA TAGGAACTCC TTAATAGTTC	12240
TTTGATAGT CTCGGTGTTT GGCTACCGCT TCTTTTAGTT CCTCAAGATT ATCTGATGAG	12300
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GCAGCTGGAA GAGCAGTCGG ATCACTTCTC TCCACGGTTG CCTTGTAAGG TTCGTGGGTT	12420
TCGATATCCA CACTCATAAG AGGTTTATAA AGAGTAGGAA TGGGTTTCAT GACCCACGA	12480
ACAACGATGG GTTGCCCATT AGTCATACCA CCTTCAAAAC CACCTAGATT ATTGGTACGG	12540
CGAGTATAAC CGTCTTCTTT AGACCAGAGA ATTCATCCA TAACTTGGCT GCCTTTACGA	12600
TAACCAGCCT CAAAGCCAAG ACCAAATTCC ACCCCTTTAA AGGCATTGAT AGAGACAACA	12660
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TGGGCGCTC TTTGCTTAAT TTCAGCGACT GTCAGATTTT CAGGAACATC GATTTCTTTG	12900
CCACCAAAGA CCACGACATG GTTGCAATC TCCATATCCA GCTCAGCCAA GAGGCGTTTG	12960
GCTACTGCAC CAACTGCCAC CCGCATGGTG GTTTCACGAG CTGATGAACG CTCAAAGAA	13020
TTTCGCAAAT CATCAAACG GTACTTAATC CCCCCAACCA AATCGGCATG ACCTGGGCGA	13080
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690

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CCACGACCGT AGCCACCCCTG ACGGCGTCTA AGGTCTCAT TGATATCCTC AGCTGTCAAT	13320
GGAAGTCCAG CTGGAATTCC CTCATAATA GCTGTTAGAC GGGGGCCGTG TGATTCTCCT	13380
GCAGTTAAAT ATCTCATACA CTCTCCTTAT TTTACCAAGT AGTCTTTCAT CTCTTCCAGA	13440
GAAACTGGGT GAATGGTCGC TGAACCAAGC TCTGGCACCA AGACCAATTT CAAGGTGTTA	13500
CCACGCGCTT TCTTGTCTAG AGTAAGAGCC TGATAAAGCT TGCCAACTTC CCAATTTTCA	13560
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TCTCCATGCA TGACCTTGCC ATAACCGGCA GTCGCTTCCA TGGCATGGCC AATAGTGTGG	13740
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CCAGCCTGGG CCATACAACC TTTTCAATC TGAATATCAT AAGGATGGTG AGGAATATCG	14460
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691

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TTGACAACCG TATTAACCGC ACCAATCAAG CGCGCTTCAT CGCTCAGCTT ATCCAAATAA	15120
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692

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CTGGTAAAAA GGACTGGACA GCATATATAA TCCAAAATTT CACTTTCACA TAACGAGCAA	18300
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AATGCAGGCT GGTGATATTG TTATTGACAA CTGCTATAAA GAGAGCTATA AAAACAAGG	18420
GTAACCAGTA TGGAGGATGA ATGTCTGAA CTATCTGAGA ATCTCGGATT TTGGAAATCA	18480

693

GACCGATCAT CATGAGATAA GGAAGGAAAG CACTTGTAAG AAGCACTGTA ATCAGGCCAG 18540
 TCCCCTGTCC CAAGAGGGTG AGGTGGTAGC GTAAAACCAT GCGAAAAAAT CCCTTTTGTAG 18600
 TGGTTGAAAT TCTCTCCTTG CTGCGACGTT CTTTTTTGAC CTTCTCCTCA CTATTAAGCA 18660
 GGATCACGTC ATAAAAACGA GGAAGGACCT TCTTTTGGT CAGATAAAGC AGGAAGAGAG 18720
 TTAGTCCTAT CCAAGCGAGC AGACCCACTA AGGCTTCTGT CGAAAAAGGC TCCACTGCTA 18780
 TTTTGTAAAA GATATGAAGA GGATAAAGGA GAAATGGAAT GTCTCTAACT TTGTCAACAA 18840
 TACTTCCAAA AGTCGACTGA AGAAAGAAGA TAAATATTAA AGGTATGAGA ACTCCTATCC 18900
 CAATCATCAC ATTCGAAAAA ATAGACTGAT ACTTTCTGAA GACCCTAGTT TGAGCCAAGA 18960
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 TCATCGAGCT AAAATAAATA GGTATTTCTT CAAAAGGAAA ATGAATGGCT ATATTACTAA 19320
 AACAGATGAT CATCAAGAGA CTGGAAGAAA TGTAAGAACT TAAGACTCTA GCGGAAACAT 19380
 TTACTTTTTT 19390

(2) INFORMATION FOR SEQ ID NO: 87:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18436 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 87:

CCGAGCGTCG TTACAGACTT TATCAAGATT GGACGCAAGA AGAAATTCAA CATATAAAGG 60
 AAAATATGGC ACAATCTCCA TGGCATACTC ATTACCATGT TGAGCCAAAA ACAGGACTTC 120
 TCAACGACCC AAATGGCTTT TCTTACTTTG ATGGCAAGTG GATCCTCTTT TACCAGAATT 180
 TTCCTTTTGG TGCAGCCAC GGTTTAAAAT CTTGGGCACA GCTAGAAAGT GATGATTTGA 240
 TTCCTTTTAA AGAAACTGGA ATCAAAGTTT TACCAGATAC TCCATTAGAT AGCCACGGTG 300
 CCTACTCTGG TTCTGCCATG CAATTTGGCG ATAACCTATT CCTATTTTAT ACAGGAAATG 360
 TTCGCGATAA AAACCTGGATC CGTCACCCAT ACCAGATCGG TGCTTTGATG GACAAGGAGG 420

694

GTAAGATTAC AAAGATTGAC AAGATCTTGA TTGACCAGCC AGCAGACTCT ACTGACCACT	480
TCCGCGATCC ACAAATTTT AACTTTCAGG GTCAATATTA TGCCATTGTC GCGGACAAG	540
ACTTGAGAA AAAAGTTTC GTTCGTCTCT ACAAGGCTGT CAATAACGAC TACACAACT	600
GGCAAGCAGT TGGCGACCTT GACTTTGCTA ACGACCGTAC TGCCATACATG ATGGAATGTC	660
CTAATTTGGT CTTTGTAGAG GAACAACCTG TCCTTCTCTA CTGTCCACAA GGATTGGATA	720
AGAAAGTTCT AGACTACGAT AATATCTTTC CAAATATGTA TAAGATCGGG GCTTCCTTTG	780
ACCCTAAAAA TGCCAAAATG GTAGATGTGT CTCAACTTCA AAACATGGAT TACGGTTTCG	840
AAGCCTATGC AACTCAAGCC TTCAACGCTC CTGATGGGCG TGCTCTAGCA GTTAGCTGGC	900
TTGGTTTGCC AGATGTTTCT TACCCATCTG ACCGTTTGA CCACCAAGGA ACCTTCTCTT	960
TGGTCAAGGA ACTCACTATC AAAGACGACA AGCTCTACCA GTATCCAGTC GCTGCTATTA	1020
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GCCAGGCTGG AGAACAGTAT GCCCAAGAAT TTGGGACAAC TCGTTCTTGC CCTATCGAGA	1260
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ACCTTGGTCA AGACAGGTGC CCACTCTATC ATCATGATTA CAGGGAATGA CAATCTAAT	1980
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CGGGAAAAAC CAGATGCCAT TTTTGCTTCG GATGATTTGA CAGCTATTCT GGTCAATAA	2160
ATCGCTCAAG AATGGGCAT TTCTGTCCCA AAAGAGCTCA AGGTCATCGG CTATGATGGG	2220

695

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ACTGGTACT TCTTACCAGT TACGCTATTA CCAGGAAAAA GTATTTAAAC ACAAGAAAAC	2400
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CTAGGTTAAA GGTTTTATCT GAGATGAGGC GCTCTACTAG GGGAGCAACT TCAGATTAC	2520
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696					
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GCCTTTTAGC	GCTAATTTAG	GATAAGGCAA	GTGGAAACAA	ACAGCCGCAA	AATCATCCAA 4200
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TAAATAGAG	TCACTAGCAC	TGGCCGCCAA	GGTCACGATA	TCCTCAGTTA	GGGGCGCAAT 4740
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TCATCATTTT	AAAGAATGAT	TAGTTGCTAG	AGAGTTCACC	GATATAAGTA	GCTTTATAAG 5040
CTCCATTCAC	AGTTATCAGC	TCCTGGAGGA	TCAAATTTCC	TGAGTAAGTC	CTTCCCATCT 5100
CATCTACAAA	TTTTTGATAA	AACTGACTGG	TCGGAATTC	TCTGACATCC	TTATCAAATG 5160
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CGTGGAGTTT	GTGCTTGAGG	ATATATCTTC	ATGAGCCCTT	GATAATCACT	GTCAGCCAAG 5580
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697

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CGGTGCCAAA ATGGCCAAGA TAAAGACCAC AGCAGGTGTC TTATAAGAA TACTTAAAT	6240
CTGGCTGACA CAAGAACCAA TAATGGCTGC AATGAAGGTA GCTACAATGA CATTGGTCGG	6300
TTCTTGAGC AAGAGATAGA TTAGCCAGAC AGTCATGCCC AAAATCCCTC CAGGTAAGAG	6360
CATAGACCGT TGCACATTGA GTACGATTAA AAAAGTGATA ATGGCAAGAA AACTTGCTAC	6420
TGCTTGTAAT AAAAAGGTG TTAGTGTCTAT ATTAGTTCAT CAATACCAAG GCGACAGAAG	6480
TTCTGCCCC TAAAGCGAGG GTAATGAGCA GGGATTCAA CATCTTACTC ATACCAGAGT	6540
TTATGTGGT GGTCTAATA TCACGGACCG CATTGGTCAA GGCAATACCT GGTACAAACG	6600
GCATGACCGC ACCAGCTATA ATCAAATCTG CCGTTGAAGG AAAACCTGTG TAGCGAGCCC	6660
AAAACCTGGC AATTATCCCA AAGACAAAG CTCCAGCAA GGCTGTCACA AAGGGAATTC	6720
GGATAAATTT TTCCACATAG AGGGAAAAG CAAAACCAA TAAGGTCGCC ACTCCTGCCC	6780
CAAGTGCGTC GTAGATATTT CCGCTAAACA TAACTGAAAA GAAAGGAGCA CTAAAGGTCG	6840
CAGCCAGAGT TACCTGCAAC TTAGTATAGG GAAGGGGTTT GGCTTGCAAG GCCGTCAATT	6900
GCTTAAAGGC TGTCTCTAAG TCAATCTGCC CCCCACTAG CTGACGAGAA ATCTGGTTCA	6960
CATCGCAGAC TTTTTCGATG TTATAAGAAG AGGAGGTCAC GCGCTTCATG CGCAAATATT	7020
GGTATTTTCA ATAGAGAAAA AGATAGCGGC AGGCATGGCA AGGACATTGC AATCCACAAT	7080
CCCCTGCGAA TCGCGGATTC GAATCATGGT ATCTTCTACA CGATGGATTG CTGAGCCACT	7140
TTTAAGGAGA ATAGTCCCCG CTAGCATAAT CACATCAATG ACGGCATTTA ATTCTTTTGA	7200
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AAAAATCTT TGCCATGAAA TCATGACAAA GATTGATTAC TCATTTTGAT TATCCATCTG	7320
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ATTGAGGTCT ACCTTTTCAC CTGCTCTAGG ACTTTGTTCA ACAACCATGC CTTCTGCACT	7440
ACCTGCAGGC GCTGTCGTCA CTTCTACAAC TTCTATATTA GCTTCCTTAA TCCCAACAAT	7500

698

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CGTTCCGGCA CCTGGACTTT GTTTCATAAT CGTTCCTGGT TCGCTTTCGC TGGACTCTTC	7680
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CACTGCCACT TCTTCCCAT CTAAGATTAA GTCTTTGGCT AGGTAGACAT CCGCCATACC	9240
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699

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TCTCCACGAA TCAAGCCGAT ACGCGAATCA CCAATATGAG CATAGATAGC CTGATTATCA	9720
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GAGAATAGGC AATGGAGTCA CGCTTGTTTT TTCGCTTGAT GCTAGCAATA TCTGGCCAGC	10980
CTTCACGCAA GATACGGCGA AGGACAGCGT TGACCAATTT TTCACTGCCT TTTTACGGA	11040

700

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CTTCGATAAA	GTGGGATAGG	TACCATTCCTA	GAGTCAGTTT	ACGGGCTACC	GTTCCATAGA	11220
CCAGCTCGGT	CACTAAGCCC	TGTCTGCTG	CCAAAAGTTG	ACTTCCCTTT	AGATGCTTAT	11280
TTAAGGCGAT	ATTTGAATAT	GCTTGGTTCA	CAAAAACATC	CTCTAGCACT	GCTAGAGCTA	11340
AACTTCTAGC	CGTTTCTACT	TTAGTCACCA	AATCGTTCTC	CTACAGTCAA	TGTACGTCCA	11400
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AGGGATAGAG	CCCCTTCAGC	CGTTGCGACA	ATCAATTCTT	TCTTGCCGAT	AGAGAGAATC	11520
TCACCTGGAT	TTCCCTGACC	TTCTACTGGT	AGGGCTTCAT	AAATCTTAAA	GCGGTCGCCC	11580
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ACAGCACGGT	CTGGCTGGGT	CACAACGGCT	AGAAATTCGT	AACGGTCATC	TGTCAAAAGT	12240
CCTTTTAAGA	CTGTGCTGA	AAAGTCGGGG	GTCCCCATAA	AGATTAGTTT	TGTCATATCT	12300
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TCCCGTTCTT	GAGTCAAGGC	TAAAACCTGG	TTGAGGGTCG	ACCCAGCTC	ATCTTCTAAA	12420
CGGTATTTAA	TTAAAATCTG	GTAATGATAG	AGGTTGTGGG	TACGGGCAAT	CGGTTTGGC	12480
GTTGCCCCCA	GAATGGGACT	GGTCTCTGAC	AAGCCTGACC	GCAAAATGTT	CATGACTTCA	12540
TAGGCACGTT	TGAAAACCTC	TTCTTCTTTC	TTGTGAGAAA	GGGTAATACC	AATCGTGAAA	12600
TAGTAAGGTG	GATAGCCGAG	TTGTCGTCTG	ATTCCCATT	CATAGGCATA	AAAGCCTTCG	12660
TAATCTTGAT	CCTTGGCAAA	TCGAATAGCA	TAGTGCTGCG	GATTGTAGGA	CTGTATCAAG	12720
ACTTGACCTG	CCTTTTCAGC	CCGACCTGAT	CGACCTGCCA	CCTGAGTCAA	GAGCTGGAAG	12780
GTTCTCTCAG	AAGAACGGAA	ATCAGGCAGA	TTCAAGGCCG	TATCCGCATT	TAGAACTCCG	12840

701

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GTATCCACAT CCATCCTCAG AATGCGAGCT TGGGGAAAGA GTTCTGCTAG CTCATCATAA	13020
GCCTTCTGAG TTCCCGTCCC ATAGTAACGA ATACTGCGGC TCTTACAGTT AGGACAGACC	13080
TGAGGAATAT CCTTCGAGAA ACCACAATAA TGGCAGTTCA TAGTCTTGGT ATCCATATGC	13140
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TCATACCAAG ACTGGGTCTT GACCTTCTTT TGATCGACTG CCTGATATTC CAGACCAAGC	14220
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TCTCCATCTG ATTGGGACTT CAAACCAAGA ACAATCCCTT GAATCAGGCG ATTACCCTTA	14580

702

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CCCCCAACC TTAAATTTTT TCACCATCTT CTTTTTCTTT AGCAATTGTC TCTTTGATTT	14820
TCTTTTCTTC TTCTTCTTTG CGGCGTTTTT CTTCTTCGAT ACGGCGACGC ACTGCTTCAC	14880
GTTTTCCTTC TGGATCTGGG TGAATTGTAA CGTTTCCTGA TTCGATTCTT TCTAAAGCGC	14940
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703

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TAGCAATAAT CTGCCCAGGC ATCTTCTGTA AACTTGAGCA GCATTTCTTA CTCCTCAATA	17940
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AGGACTACAA TGTCTCATC TGGATTTTA TTGACCACCG TCAAAGGCTC AAATTCATCA	18120

704

TTTACCTTCT TCATGTAGTC CTTTAAATGA TTTCGGAATG TTGAGTAAAG GACTGCTTCC 18180
 ATAACCATAC CTCGTTTTAG CTCTTTTCCA CTATTATACA CGAAAAGAAA GAAATTGTCA 18240
 GGAAGTTGTA CAAGATTTTC TTTTCTATCT ATTTATACTC AATGAAAATC AAAGAGCAAA 18300
 CTAGGAAACT AGCCGCAGGC TGTACTTGAG TACGGCAAGG CGACGTGAC GCGATTTGAA 18360
 TTTGATTTTC GAAGAGTATT ATTCGTAAAA AATCTCAAAA AGCCTACCTT TCGGTAGACT 18420
 TAGTTTGTTC CTATTC 18436

(2) INFORMATION FOR SEQ ID NO: 88:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 7001 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 88:

ACGTAGAAAA ACTATTTCTA TCACAGATAA TATTCCTGAT GTTGTGGAG GTATTGAAAT 60
 AAACGTCCTA GGTATCTTTC TCAGTCTATG TGACTTACAA GGGAAAACCTC TTTTCGAGAC 120
 AGAAATTTTG AATGAAGATT ATCCTATTTT AGAAATCAAT TCCACCATT A CCAATATGAT 180
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 TTTTAATTTA TTAAATGTAA TTAAGAGATT CAATTTTCCT TTTATTGTAA AAAATAATAT 360
 CGATTGTATG GCTATAGGAC AATACCTTTT TAATCCACAC AATACCCCCG ATAACCTTAT 420
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 ACACGCCCAA TTATTATTTA AAAATTCCCA ACTAACTGTA CTAAGAGCC TTGTAAAGAC 660
 TGAAAAAGAC ATTCATTTAG ACACCTTTT AACGGCTTAT AATTAGGCG ACTCCGCTTT 720
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 TCATGAAGTC AGGGATAAAA TCCAAGACCA GTCCTACTTC GTTCCCTTTA CTCGTAATAT 900
 AGAAATTGAA ATTTTACCTT ACAACAAACA TCGTGGAAGT ATAGGAGCTT GTGCATTAGC 960
 TATCGTCGCT TTTTTCATAG AACATAGCAA TGTATTACAA GATATTATTT CACCTTAATA 1020
 TATTAGAAAT CTATAGACCT GTTTAAATCA ACTATAACCT GTAGTAGATA TCTCGTATTT 1080

705

AGACAATATG AAAACAAGAC GACTTCCATA TAGGAAACCG CCTTCTCGCT ATGTTGAGTG	1140
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AACCCCCAGA ACTTAAATAA CAATTTTAT TCAAGATACA TACTCCTAGA ATAACTTTA	1260
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TCACAATATA TAAGTTCATC CTCGGAAAAA TATCATTCTA ATTGTTGAAA TGCCTACATG	1620
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TGATAGCATT TCTACAAATA CAAGTAAAGA GAGCGGATGA GATTCAAACG AATATGTCA	1860
GTGCTTTGGC ATTCCTAGCC TTCATATCAT TTAAAGAATT CTATAGACAA AATTTTTC	1920
AATACAGACA CTCGTAACAA CTGCTTCATT TTTCTACCA CATATTTAGG AACAGGATAA	1980
GATACAAGAG TATTAATCCA TAGCTCAGTT CTATACCAAT CTAAGACAAA TAAGCTAAAA	2040
AAACGATTGA TAATAAGCAA ATAGATTCCA AATTTTCTCT ATCTGCTCAT TTTAATAAAC	2100
AATACTAGTG TAACTATCCT TCCAGTCAGA AGCTTGTCAG ATCACACCGA AAATCTTCT	2160
AAAATTTATC TCGTTAGGCA ATCAAGCAAA AACTCGACGA TAGTACAAAC ATTATCATAC	2220
AGGATTGACT TCCTAAATTA TATACTTTAG TAAGGTTTC GGATAAGAAA AAAGGTCAT	2280
TTTACATTC TAAACATTCT TTTCTAAGAT GAAAAACAGA ATTTTTCGAT TGTGATTAA	2340
AGCAACAAGA AGATTTTCAG TATCATCCTA TAGATACGAG CTAATTAAGA AAACTACAT	2400
TTTGAATAT AAACATAAT AATATAAACT AAATTTTATA GGAGGAAGAC AATGGATTGG	2460
TACGATTATA TGATACAGGC ATCCAAACAA TCACAATCA ACGCAAGCCA TTGGTTTCGC	2520
TATTTGCGAA AAGTTATTTT TGAAGACTAT TCTTATTTAA CAAACCAAGA TGTAGAAAAG	2580
TTGCTAGACT CCAAAGAACT AACCCGTTTT CAAAAAATTA GCTTGAAGTA TGCCTTTCAA	2640
GAGCATCTC CAACTCATAA ATATGTGATT TCATTAAATA AACCTGCTAA GTTAACCAAT	2700
GTTCAAAAAT TGATGGAGAA ATACAAACAT GGATAAAATG AAACCGGTCT TCCAAGCCCT	2760
AAATAAGGAA TTAATTCAGG AAAATCTGAC TTTAACAATT ATCTGTGTCG GTGGTTATGT	2820

706

CTTAGAATAT CATGGTTTAC GTGCCACACA AGATGTTGAT GCTTTTATGG CTCTATAATA	2880
TTTGTAGTGG GTAAATCCCC TATGGATATT ATGGAGCCTA TTTTGTGTA GAAAAAAGT	2940
CCCATATGAC CTATAATGAA AAGCGACAAA ACAACTCATT AGAAAGAATC ATATGGAACA	3000
ATTACATTTT ATCACAAAAAT TACTAGACAT TAAAGACCCT AATATCCAGA TTTTAGACAT	3060
CATCAATAAG GATACACACA AGGAAATCAT CGCCAACTG GACTACGACG CCCCATCTTG	3120
CCCTGAGTGC GGAAACCAAT TGAAGAAATA TGACTTTCAA AAACCGTCTA AGATCCCTTA	3180
CCTCGAAACA ACTGGTATGC CTTCTAGAAT TCTCCTTAGA AAACGCCGTT TCAAGTGCTA	3240
TCACTGTTC AAAATGATGG TCGCTGAAAC TTCTATCGTC AAGAAGAATC ATCAAATTCC	3300
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TGAGCATGAT TTTTCGCGTC TTCCTGAGAT TATGTCCTGG GACGTTGAAA CAGTCCGGGG	3480
AGTGACTGTT TCAATCGGGA GATGGAGATG AGCTTTATTG CGCAAGATTT TGAAAAGCTC	3540
GATATCATCA CTGTTCTTGA AGGTAGAACA CAAGCTGTCA TCCGAGATCA CTTTCTTAAA	3600
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CAACTCTTGC TGTTTCACTT TCAGAATAAG GAACCGGAGA AATTTTTCGA ACTTATCGAG	4020
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AAAGAAAAGG TTATCAACGC CCTTCAACTA CACTATTCTA ATGCCAACT GGAAGCGACC	4140
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TGGATCTGAT TTTTGATAAA CAGCGACTCG TTCAAAATTC ACTAATAAGC GTTTATTAAA	4560
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TTTTTCCCAT TCCGACGGTA AAATAATCTC TGTGTCCATC ATCTGATATT CTACAATTTC	4680
CTGGCCATTA TCATAATAAA GAGCATCTCC AACTTTTAGC TGATCCAAAT GGCGGAAAAA	4740
GACATGGCTT GGCTCTGCAC GGTGCCCAGC AATCACTGAG CGAATCCCTG TACCATCCAG	4800
AGGCAGCGGT GTACCATCCA CATGAGCCAA GCCCATCCCT AAATGATGAT AATCTGCTCC	4860
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CTCCTAGTAA TAACCACAAC CAGAATTGCC CACGCTCTCT CACCGCTCGA TTCCGCTCTG	5340
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TATACGGTGT ACAAGTCAAC AAGGTCGCAT AATCTTCCCC ATGTTGAATC AAGACAGGCT	5460
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AAACGTGAAG ATAAAGATA TCCCCTTTTT TCATCTTATC CAATTGACTG AACAAATTCTG	5580
CCGTGGCAA TCCTCTGTGA GCAGTGATCA CTGTATGGGT ATTTTCACCT CCAACAGGCA	5640
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GTCTGCCTT ATCCATCTGG GAAACCGTCT CATCAAATC TTTAATAACC TCGTTTGACT	5940
CAATACGATA ATAATAACGA GACACCAATG GATATATCGC AACGGCGAAT CCTACTAAGA	6000
AAATCAGAAG AAGGATCAGC GGATGTTTCT TCTTTTTTGT GCCTTTTTTT CGTGAACGTC	6060
TACTGTGTCT CATCCTCCAC CTTCACTTCC TTCCTTGCTG CTTTCAGCGC CTTCAAAGCC	6120
TTTTCCGGTT GTTTTTTCTT CTTGCGCAAG CGTCGAATAA TCCATAAAAG AATCACAATC	6180
AAACCAACTG CCACATAAAA CAGGTAGCGA TAGAGATGAC TGAGTTTGTT TGCTGCAATA	6240
AATCTTCTCT CAACCTCTGC TACGTACGGT ATCCGATGCC CCCGAACCAA TAGACGATGG	6300
GTATTGATCA TGTATGGCGT ACAAGTCAGC AAGGTCACAT AATCATGACC TGGTACAATC	6360

708

AATAAATCAT CAAAGTTCGT CGGCTCAATC ACCTTTACTT GATCCACTTG ATAGGCCATC	6420
ACTTCCTTGA TATTGTGCAC ATAAACTTA TCCCAACTT TAAGTTTGGT CAAATCCGTA	6480
AACATCTTAG CTGTTGGCAA ACCTGTATGT GCCGTAATCA CCGCATGGGT CGAATTGCCT	6540
CCGATCGGCA GAGAAGTTC CTCTAGATGC CCAGCCCCTT GCTGCAATAC CTCTTCAGCA	6600
GTACCAGCAT AAACCGGCAA ATCCACGTCA ATAACGGGGA TTTCCACATG CCCCATCCGC	6660
TCATGGATTT CTAACATACG TGCATACTCT GCTCGCCCTT TTTCTTCAT TTCTTCCGAC	6720
CAAGGATCGC CACTCACTAC ATTATTCAA GAGTCATTGA AGGCTTGTGC CAATTTCAAT	6780
CGTTCATCAA TGTGAGCTC ATCCAACGTT GCTTTTTCCT TATCAAAGTC AGCAATTTGT	6840
TGATTTGATT CCACTCGATA ATACAAGCGA GACACCAGCG GATACGCCAT TACCGCCATT	6900
CCAATGAAAA ATACCACTCC TAATAGGAGA TTATTTTCGTT TTTGCTTTTT TGTTTTACC	6960
ATTTTATCA GCATCCCTTT ATCTTCAAAC TTCAGGGTAT C	7001

(2) INFORMATION FOR SEQ ID NO: 89:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10411 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 89:

GAGGGAGCTT AAGAAGTTAC CACCGCTCTC TAGCGCCTTA TCCGCATCAA AGTTAAGGTT	60
GATATTTTAA AACTGTGCGC CAGCTTGTGA TACGATGCTT TGTTTAAGGT CATTAGGGT	120
TTTAGTGAAG TCTGCATTGC TGAGGATATC ACTCTTTGAG AGATTCAAGG CAAAATTGAT	180
GATGATATTG ATCTGGTTTC CTGTTATGAC CTGATCAAGT TTGTAATTTT TTAAGGTATC	240
TTCAACAATC TTGCGGATAT CTTCTTCTGT CAGATTTCCT TTACTTTCTT TAGCTTTGGC	300
GAGTCCTGAC TTGATATCAG CTAGGGCAAC GTTTAATTTA TTAGCATCAT AGCCTGATTT	360
GTCTTGTTTT TCAGCATTGA TATCTGACAA AGCTTTTAGC TCTTCTTGAG CCAATCTTT	420
ATTAGCTTGT GGCACCTTGG CTCCATTAGC CTCTAGCGAA TAGTAAATCC CTGCTAAAGC	480
ACTTTCTCCT GTAACGGGAA TAGGGGCTGC TACAGTGATT TTGGCATGTT CCATACCCAG	540
CGTTACTGCT GCGTTTCGGT ACATATCCTG AGTCACCTTA GTGATATTTT CTGGTGTTC	600
AATCTTGACC TCAAGTGGCG ATTTGTCACC TAGCTTTTGA ATCTTGGCTG ATGAATACAA	660
CTGTAAGCTA GAGTCATTGG CCACATTCAT GATTTTAGAA TAAACATCAG GTGTCATGGT	720
CTTGAGTTCT TTGGTATCTG TTGAGGCATT GTAGCCCACT TTTTAAAGAG TTGATTTT	780

709

TTGGTCTTCA GATAGGGAGG AACCTAGGAC ATATTTCAGGT TGGACATAGG TTTCATCGAT	840
AACTTTTGA ACATCTGTG CTGCATGGAC GCTATTGATA GCTGTTACTG CCCACAAGAT	900
CGCAGCGCTA GTCAGAAAGA GTTCTTTCT CATAGGGAAT TTCCTCCTTT ACTTCTTTAG	960
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AAAAGAGAGT GAAACATTG ATGATGTAAA GGTAAAGTCG TACCTGTCTA GAATAATAAT	1080
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TATAAGTCTT TCCAGTCTA TTACCAAGCA AGGGGGCAAC AGTCTCACGA GAGTACTGTT	1200
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CAAAATTATA GGCTGAAACA GCTGTCCAGA TATCTACCCC CTCTTCTGCG GCCAGATAGA	1320
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TGGTGGAACC ACTTGAGAC TCACTAGACT GCATAACATC GCCTTCTTTT CCTTTGTTT	1440
CAGTATAAAT CATAGCAAGC ACAAGCTCTT CGTTTGCTGG GGTGTCTTGT TCACTCAATA	1500
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TCCATTTGAT AAGGAGAGTT TTTGGTTTTC AAATTTCTTT AATTGGCGAC TGGCATCAAT	1800
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TGTAATATGA TTGAAGAAGG GATTTTCTTC TTCGAAAATC CCAGTCTTGG CTTTATCTGA	2460
ATACACATGT TCAATTTTTT TACGCAGGTA TTCTTCGATT TTTGGAGTAA TATTGAGAAA	2520

710

CTTATCTGCT AAGAACAGTT CGGTATCATC CGGACTGAAC TGGTGAATAA TGGCTTTCCTT	2580
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AATCAGGGTC TTGCAAGAAG ACATCTGCCA TAGCCTTGCT GTTCTTAATT ACATTGGCAG	3000
CATATTCCTT GAAGGCTGGA TCCAAAACCT CTTTGAAGGA AACTGCCTTA GCCGCCACAA	3060
CATGCTCTAA AGGACCGCCC TGAATACCTG GGAAATAGC TGAATTGATT TTTTGTAGCA	3120
GTTCTTCGTC ATTGGTCAAA ATCAAACCAC CACGAGGTCC ACGAAGGGTT TTGTGGGTCG	3180
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CAGCGATATG GGCCATGTCC ACCATGAGCT TCGCACCGAC AGCATCTGCG ATTTACCGGA	3300
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CACTATAAGA AACAAAGTTG TAGGTTTGAC CAGAGAAGCT AACAGGAGCC CCATGAGTCA	3480
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GAGCTGCCAT AACAGCCTTG GAACTACGT TTTCCGAAGC AATTAACTCG ATATTATTTT	3780
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GCATCCTCAT AGCCAAGTAG GAAATGATGG GAATCCTGAG ACAGTCTAGC TAGTTGGCTA	4260
GCCGTTTCCT CTGGACTAAA AGTATAACCC AAAGCCTCTT GGTGATGTC ACATATAGCT	4320

711

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CAACCGAGCA AGAATATCTT CTCGCTTAAT GGCCCTTGA CGTAAGATTT TCACCTTGTC	4440
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712

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CGCCGTCACG CGTATCCAGA GCCGAGTCA TAATCACAA ACCTTTTCCT TGCTCCTCGT	7860

713

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AGTACAACGT TGCCATGTTT CTTGCTTCAC GTCCATTTCT AAATTTTGC TACATTCTAG	7980
TATATCATAA TTTTCTTAAG CTTTAAACGG CAAAATGTGG TAAAATAGAA GAAATCAAAA	8040
ACTAGTGGAG GAAGCTATTA TGCCATTTGT ACGCATCGAT TTATTTGAAG GACGCACGCT	8100
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ACTTGACACA GGCAGAGGCT GTGATGGATA TCATCCGTGC CAAGACTGAC AAGGCCATGA	8820
ACATTGCGGT CAAACAATTA GACGGCTCCC TTTCTGACCT CATTACAAT ACCCGTCAAG	8880
AAATCCTCAA TACACTTGCC CAAGTTGAGG TCAATATCGA CTATCCTGAG TATGACGATG	8940
TTGAGGAAGC CACTACTGCT GTTGTCGAG AGAAGACAAT GGAGTTTGAG CAATTACTAA	9000
CCAACTCCT TAGGACAGCA CGTCGTGGTA AAATCCTTCG TGAAGGAATT TCAACGGCTA	9060
TCATTGGACG TCCCAACGTT GGGAAATCAA GCCTTCTCAA CAACCTCTTG CGTGAGGACA	9120
AGGCTATCGT AACAGATATC GCTGGGACAA CACGAGATGT CATCGAAGAG TACGTCAACA	9180
TCAATGGTGT ACCTCTCAA TTGATTGATA CAGCCGGTAT TCGTGAAACG GATGATATCG	9240
TTGAACAAAT TGGAGTTGAG CGTTCGAAAA AAGCTCTTAA GGAAGCTGAC CTAGTTCTGC	9300
TAGTACTAAA CGTAGTGAA CCACTAACCG CCCAAGATCG CCAACTCCTA GAAATCAGTC	9360
AGGAGACTAA TCGCATTATT CTTCTTAACA AAACCTGACCT GCCTGAAACG ATTGAAACTT	9420
CGGAACTACC TGAAGATGTC ATCCGCATTT CAGTCTTAA AAATCAAAAC ATCGATAAAA	9480
TCGAAGAGAG AATCAACAAC CTCCTCTTTG AAAATCCTGG TTTGGTTGAG CAAGATGCTA	9540
CCTACTTGTC AAACGCCCGT CACATTTCTT TGATTGAGAA GGCCGTTGAA AGCCTACAAG	9600

714

CTGTTAACCA AGGTCTTGAA CTAGGGATGC CAGTTGACTT GCTTCAAGTT GACTTGACCC	9660
GTA CTCTGGGA AATTCTAGGA GAAATCACTG GAGATGCTGC TCCAGATGAA CTCATCACCC	9720
AACTCTTTAG CCAATTCTGT TTAGGAAAAT AAGAAAAATC CATGATCCTT CATTCGGTCA	9780
TGGATTTTATG GTTCTATAAT ATTTGTAGTG GGTAAATCCA CTATAGATAT TATGGAGCCT	9840
ATTTTATTGT AGAAAAAAG TCCCATATGA CCTATAATGA AAAGCGACAA AACAACTCAT	9900
TAGAAAGAAT CATATGGAAC AATTACATTT TATCACAAAA TTAGTAGACA TTAAAGACCC	9960
TAATATCCAG ATTTTAGACA TCATCAATAA GGATACACAC AAGGAAATCA TCGCCAAACT	10020
GGACTACGAC GCCCATCTT GCCCTGAGTG CGGAAACCAA TTGAAGAAAT ATGACTTTCA	10080
AAAAACCTTC TAAATTCCT TATCTTGAAA CGACTGGTAT GCCCACTAGA ATTCTCCTTA	10140
GAAAGCGTCG ATTCAAGTGC TATCACTGTT CAAAAATGAT GGTGCGTGAA ACTTCTATCG	10200
TCAAGAAGAA TCACCAAATC CCTCGTATCA TCAACCAAAA GATTGCTCAA AAGTTAATTG	10260
AAAAGATTTC TATGACTGAT ATTGCCCATC AGCTTTCCAT CTCAACTTCA ACTGTTATTC	10320
GTAAGCTCAA TGACTTTCAC TTAAACATG ATTTTCTTG TCTTCCTGAG ATTATGTCTT	10380
GGGATGAGTA TGCTTTTACA AAAGGAAGA T	10411

(2) INFORMATION FOR SEQ ID NO: 90:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2393 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 90:

GTTTGGGTT CTGGAAATTA TCAGATGGTT GGAAAAGCCG TCCACATCAA GATAGTGTTC	60
GGAGATTTAA GTTTAAATTG AAGAACTAA CACAGAGGAA ATGGAGTATA GACCTAACAA	120
GACGTATTGA GCAACTGAAT TTGTCTATTC GAGGATGGAT AAATATTGC TCATTGGGAA	180
ATATGAAAAG TATAGTCGCC AGCATAGATG AGCGCTTGC TACTCGCCTA CGAGTGATTA	240
TCTGGAAGCA ATGGAAGAAG AAATCGAGAC GATTATGGGG ATTGCTTAAG TTAGGAGTTC	300
CTAAATGGAT AGCAGATAAG GTATCTGGCT GGGGCGACCA TTATCAATTA GTAGCTCAGA	360
AGTCGGTACT TAAACGTGCT ATATCAAAC CAGTCCTGGA AAAACGTGGA CTGGTTTCGT	420
GTTTGGATTA TTACCTTGAA CGACATGCGT TAAAGTTAG TTGAACCGCC GTATGCCAAA	480
CGGCACGTAC GGTGGTGTGA GAGGGGCTAG AGATTATCCC CTACTCGATT AACTCCCCTG	540
AAATTTATTT TAATTATGCA AATTTCAGT ATTTTGTATG CTGAGACGAC GATCCTGGGA	600

715

ACTTTTCAGA TATTTTTTTG ACTATCTAAA TCTATCATTA GAAAAGCTTA GAGCGCCAAA	660
GGATTTGAGC GTTTTCTGA TTTTAAAGAC TTTTCCAGT CTCTTTTCG ATTGAAGATG	720
TAATTATTCT ACTAACTAAC TAACTTCTTA GTACTAGCCA ACAACGATAA TCATAATTCC	780
TCCTAAAATT AGGAATAATA AAGGCAATAG TTTTGTGTTT TTCATGTAAA AAACCTCACT	840
TTTGTGTTCT GCTATTTTAT GCTAAAATAT TAAAAATCAA ATTTAATTCC AAAGTTTGTA	900
ACTAAAGGGG GAGCGCTACA TGTCTAATTC ATTTGTCAAG TTGTTAGTCT CTCAATTATT	960
TGCAAAATTA GCAGATATTT TCTTTAGAGT AACAATCATT GCTAACATAT ACATTATTTT	1020
AAAATCAGTA ATTGCCACAT CACTAGTTCC TATCTTAATA GGAATATCCT CTTTGTGTC	1080
GAGTCTTTTA GTTCCGTTGG TTAATAAAG GTTAGCGCTA AATAGGGTTT TATCTTTATC	1140
TCAATTTGGA AAGACTATAT TATTGGCGAT ACTGGTAGGA ATGTTTACCG TAATGCAATC	1200
CGTAGCGCCT TTGGTGACCT ATCTATTTGT TGTGCAATT TCCATACTAG ATGGTTTGC	1260
AGCACCCGTT TCCTATGCTA TTGTGCCACG CTATGCGACC GATTTGGGTA AGGCTAATTC	1320
AGCCTTATCA ATGACTGGTG AAGCTGTTC AATTGATAGGT TGGGGATTAG GTGGACTCTT	1380
GTTTGCAACA ATTGGTCTGT TACCTACCAC GTGTATCAAT TTAGTCTTGT ATATCATTTT	1440
TAGCTTTCTG ATGTTATTTT TTCCTAACGC TGAAGTGGAG GTGTTAGAGT CAGAACTAA	1500
TCTTGAAATT TTGCTCAAAG GTTGAAGTT AGTTGCTAGA AATCCTAGAT TAAGACTTTT	1560
TGTATCAGCA AATTATTTGG AAATTTTTTC AAATACGATT TGGGTTTCTT CCATTATACT	1620
TGTTTTTGTA ACGGAGTTAT TAAATAAAAC GGAAAGTTAC TGGGGATATT CTAATACAGC	1680
ATACTCTATT GGTATTATAA TTAGTGGCTT AATTGCTTTT AGGCTATCTG AAAAGTTCCT	1740
TGCTGCTAAA TGGGAACCCC AATTATTCAC CCCAAATCTA AAAACCATCC AGAATCCTTG	1800
CCTTAGCTTA GATCCTGGAT GGTTCCTTTT TTCACCCAAT GGGTGTTPPT TACTAGACAA	1860
AAAAGAGTTT CCCCTTTATG GTATAAGTGT AGAAAAAAG AAAAAAGAA AGGAACTCA	1920
CATGAACAGT TTACCAAATC ATCACTTCCA AAACAAGTCT TTTTACCAAC TATCTTTCGA	1980
TGGAGGTCAT TTAACCCAGT ATGGTGGTCT TATCTTTTTC CAGGAACCTT TTTCCAGTT	2040
GAAACTAAAA GAGCGGATTT CTAAGTATTT AGTAACGAAT GACCAACGCC GCTACTGTCC	2100
TTATTCGGAT TCAGATATCC TTGTCCAGTT CCTCTTTC AAGTTAACAG GTTATGGAAC	2160
GGACTATGCT TGTAAAGAAT TGTACAGTGA TGCCTACTTT CCAAAATTGT TGGAAGGAGG	2220
GCAGCTTGCT TCACAGCCAA CCTTATCCCG TTTCTTTTCC AGAACTGACG AGGAAACAGT	2280
CCATAGTTTG CGATGCCTCA ACCTTGAATT GGTGCAATTC TTTTACAGT TTCACCAGCT	2340

716

AAACCAACTC ATTGTAGATA ACGATTCTAC CCATTTCACA ACTTATGGCA AGC

2393

(2) INFORMATION FOR SEQ ID NO: 91:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 4762 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 91:

TTTGTATCTT TTTAGGTCTC TTTCAATCCA AACCCCTTAA ACTATACGTC ATTTTCGGTTC	60
CTGCAAGTCT TGTGGTAATT TTAGGTTTGA TTTTACTTTT CTTTTCACAA GAGCCTCTGC	120
ACGCTTCTTA TTTGATGGTC GTCTTCCCTG TTTTCCTACT TTTATTGGTA ACCAATATTA	180
AGAGTCAACA GAGGGGGCGT AGTGCTAGAA GAAGCCGAAG AGAAACGCCA TTATGCCTAT	240
GGAGTCGTTT CTTCAAAGGA AATCTATATC TGCTAGTTTT TGGGTTTGTC TATCTTTTGT	300
CTGTTCTTTT TTTGATGAAG TTTGTCCTTT ATCCAGTACC TTATCAAGAA CGTAATCGTC	360
TTGCTGATTT GGTAAAAGAG GAGACAAATA CGGAAGATGC TATCTCATGC ATGGGATGAT	420
ACTGCGACTC TTTATCGTAA GAGTGAGCGC TTGTCCCATC GCGGATTTTG TCCCCGTTGC	480
ACTATACAGC AACTGAGGAA AATCGTAATA AGTTACTTAA TGACTTGAAA GAAAAACAAC	540
CTAAGGTGAT TGTGGTAAAT GATAAGGTGG TAGTCTGGTC TGAAGTGGAA AACTCTTAA	600
AAGAAAATTA CCAACAAGTA AAGACTGATT ACTCAGAGTT TAAAGTCTAT AAAATTAAAT	660
AACCAATCA ATATCTTGTG TATTTTAAAT AATTTTAGGA TTTTAAACAC AAGATATTGA	720
TTTTTCTTTT TAGAGTGGTA TAATACTTTT TAGAAAGAAC ATTTTAGAAA AGAGCATGCA	780
TATGATTGCA CTAGAAGAAA AAATTACAAT TTTGCCAACT CTCTTCGTCG AGAAACGAGA	840
TGGGAGACGT GTTGATTTG ATGTGGACAA GATTGACAAG GCTCTCCACA AGGCGGCTGA	900
CAAGGTTATG GATGTGACAC CCCTGGTTGA AAAATGCCTC AATGATCTGA CTGAGCGAAT	960
TATTACAGAA ATTCATAGTC GCTTTCACA GGAATTAAG ATTTACGAAA TTCAAATAT	1020
CGTAGAATCA GAACTCCTTG AAGCCAAAGA ATATGCGCTG GCTGAGGAGT ATATTACTTA	1080
TCGGACACAG AGGGATTTTG AGCGCTCAAA AGCGACGGAT ATCAACTTTA GTATTATATA	1140
ACTTCTCAAC AAAGACCAGA CAGTTGTCAA TGAAAACGCT AATAAGACA GTGATGTCTT	1200
TAACTCTCAG CGTGATTGTA CAGCAGGGAT TGTGGGAAA TCAATCGGAC TGCAATGCT	1260
TCCTAAGCAC GTAGCCAATG CCCACCAAAA GGGGATATC CACTATCAGC ATTTGGACTA	1320
CAGTCCCTAT ACCCCTATGA CCAACTGCTG TTTGATTGAT TTTAAGGGTA TGTGGAAAA	1380

TGGTTTTAAG ATTGGAATG CAGAGGTAGA GAGTCCCAAG TCTATCCAGA CTGCGACAGC	1440
ACAGATTTCCT CAAATCATG CCAACGTTGC TTCTAGCCAG TACGGTGGCT GTTCAGCTGA	1500
CCGTATCGAT GAAATTTTGG CGCCTTATGC AGAGAAGAAT TATCAAAAAC ATCTCAAAGA	1560
TGCAGAAGAG TGGGTATTGC CTGAAAAACA GGAAGATTAC GCTTGGAAGA AAGCGCAAAA	1620
GGACATCTAC GATGCCATGC AATCTCTTGA GTATGAAATC AATACTCTCT TCACTTCAAA	1680
TGGACAAACA CCTTTTACTT CGTTAGGTTT TGGTCTGGGA ACCAGTCGTT TTGAACGAGA	1740
AATTCAAAAA GCTATTTTAA ACATTCGCAT CAAGGGTCTT GGTTCAGAAC ACCGTACGGC	1800
TATCTTTCCT AAACCTATCT TTACGCTTAA AAGAGGCCTC AACTTAGAGG AAGGAATCC	1860
CAACTATGAC ATCAAGCAGT TGGCTCTAGA GTGTGCAACC AAGCGGATGT ATCCAGACGT	1920
CTTGCTTAT GATAAGATTG TTGATTGAC AGGTTCTTTC AAGTGCCTA TGGGCTGCCG	1980
TTCTTTCCTT CAAGGGTGA AGGATGAAA TGGTGTAGAA GTCAATTCAG GTCGCATGAA	2040
TCTGGGTGTT GTGACGGTTA ATCTGCCTCG TATGCTCTT GAGTCTGAAG GTGATATGAA	2100
TAAGTCTGG GAAATCTTCA ACGAGCGAAT GAATATCGCA GAAGATGCTC TTGTTTACCG	2160
TGTCGAACGC ACTAAAGAGG CGACACCAGC GAATGCTCCT ATTCTTTATC AGTACGGTGC	2220
TTTGTGCCAT CGTCTAGGTA AAGAAGAAAG TGTGACCAG CTCTTTAAGA ATCGTCGTGC	2280
GACCGTTTCG CTGGGCTATA TCGGCTTGTA TGAAGTAGCG ACAGTTTTCCT TTGGTAACAG	2340
CTGGGAAAGT AATCCAGATG CTAAGGAATT CACGCTAGAC ATCATTCACG ATATGAAACG	2400
CCGTGTAGAA GAGTGGTCAG ACCAATATGG CTACCATTTTCT TCTATCTACT CAACACCATC	2460
CGAAAGTCTG ACAGACCGTT TCTGCCGACT AGATATAGAC AAGTTTGGCT CTATTCCTGA	2520
TATCAGAC AAGGAATACT ACACCAACTC TTCCACTAC GATGTTGTA AAAATCCAAC	2580
ACCGTTTGAA AAATTGACT TTGAGAAAGT CTATCCGGA GCAGGTGCGT CAGGTGGTTT	2640
CATCCATTAT TGTAGTATC CAGTCCTTCA GCAAAATCCA AAGGCCTTGG AAGCTGTCTG	2700
GGATTATGCT TATGACCGTG TAGGCTATCT AGGCACCAAT ACTCCGATTG ACCGTTGCTA	2760
CAAGTGTGAC TTTGAAGGGG ATTTTGAACC AACTGAGAGA GGGTTTGCTT GTCCAAACTG	2820
TGGCAATAGC GACCCATAAA CAGTAGATGT GGTGAAACGA ACTTGTGGCT ACCTAGGTAA	2880
TCCTCAAGCA AGACCGATGG TCAACGGGCG TCACAAGGAA ATCGCTGCGC GTGTCAAACA	2940
TATGAATGGT TCAACGATTA AAATAGCTGG GCATCAAGTA ACAAATTAGA AAGAAATGAA	3000
ATGGGAAAAT ATCAACTAGA CGATAAGGGG CGCGCACAAAG TGACCCGTTA TCACGAGAAA	3060
CACTCTAAAG GTGAGCTGG TAAGAAAGAA CGCTTGCTTA GCTTCAGAGA ACAATTTTAA	3120

718

AACAAGAACA AGAAAAATA AAAGTGAGAG CCAGCTCTCG CTTTCTCAT AGTGGGAGGT	3180
AAGGATGGAA TTACGCAGAC CAAGATTAGC GGATAAGAAA GCTGTTTGTAG ATATGATGAC	3240
AGAGTTTGAA AAATTTCACT CGCCTCACGA CGGCGGTTTC TGGGATACAG AGAACTTTGT	3300
GTATGAAGAC TGGTTAGAAA GCAATCAGGA ACAGGAAATG GGGATTAATC TGCCTGAAGG	3360
ATGGGTTTCT GCAATTCAGT TAGTGGCTTT TTCTGAGAAA GGTCAAGCAG TTGGATTCTT	3420
TAATCTCCGG TTGCGCCTCA GTAACCTTCT ACTAGAAGAA GGTGGCCACA TTGGCTACTC	3480
CATTCTGCCA TCTGAAAGAG GCAAGGGTTA TGCAAAAGAG ACTCTCCGTC AGGGCTTGCA	3540
AGTTGCTAAG GAAAAGAACA TCAAGAAAGC TCTGGTGACC TGTAAGTGA ATAATCCTGC	3600
TAGCAGAGCA GTCATTCTAG CAAATGGTGG AATATTTGAG GATGCTCGCA ATGGAGTCGA	3660
GCGTTATTGG ATAGAGGTAG CGAATGAATA ATCCAAAACC ACAAGAAATGG AAAAGCGAGG	3720
AACCTAGTCA AGGTCGTATC ATTGACTACA AGGCCTTTAA CTTTGTGGAC GCGAAGGCG	3780
TGCGCACTC TCTCTATGTA TCAGGCTGTA TGTTCCTACTG CGAGGGATGT TATAATGTTG	3840
CGACTTGGTC TTTTAATGCT GGCATTCCCT ATACAGCAGA ATTAGAAGAG CAGATTATGG	3900
CAGACCTTGC CCAACCCTAT GTTCAAGGCT TGACTTTGCT GGGAGGGGAG CCTTTTCTCA	3960
ATACTGGGAT TCTCTTGCCA CTTGTTAAGC GGATTCGGAA GGAATTGCCA GACAAGGACA	4020
TCTGGTCCTG GACCGGCTAC ACTTGGGAAG AAATGATGTT GGAAACTCCA GATAAAGTGG	4080
AATCTTGTG ACTGATTGAC ATTCTTGTG ATGGAAGATA TGATCGAACT AAGAGAAATC	4140
TTATGCTCCA GTTTCGAGGT TCATCTAACC AACGAATTAT CGATGTGCAA AAATCGCTCA	4200
AAAGTGGGCA AGTAGTGATT TGGGACAAGC TCAATGACGG AAAAGAAAAGC TATGAACAGG	4260
TGAAGAGAGA ATGAAGAAAA AGGACTTAGT AGACCAACTA GTCTCAGAGA TCGAGACGGG	4320
GAAAGTCAGG AACTTGGGAA TATACGGTCA TGGAGCTTCA GGTAAATCAA CCTTTGCACA	4380
GGAATTGTAC CAAGCTTTAG ATTCTACTAC AGTAAATTG CTAGAGACAG ATCCTTATAT	4440
CACCTCAGGA CGCCATCTGG TAGTACCCAA GGACGCGCCG AATCAAAAGG TGACAGCCAG	4500
TCTGCCAGTG GCGCATGAAC TGGAGAGTTT GCAGAGAGAT ATCCTTGCTT GCAGGCGGGT	4560
ATGGATGTCT TGACAATTGA AGAACCTTGG AAGGCTAGTG AGGTCTTGTC TGGAGCCAAA	4620
CCAATTTTGA TTGTCGAAGG GATGTCTGTT GGCTTTCTAC CCAAGGAAC TTTGAAAAA	4680
ACCATCTGTT TCTACACGGA TGAGGAGACC GAATTAAAGC GACGCCTTGC TAGAGATACG	4740
ACTGTGAGAA ATCGCGATGC GG	4762

(2) INFORMATION FOR SEQ ID NO: 92:

(i) SEQUENCE CHARACTERISTICS:

719

(A) LENGTH: 3832 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 92:

GATGCAGGTT TCGACCCACA TATTCAGAA AATTACTTTA AAGATGATGA TGTTAATCAG	60
GTACCTTGTC TTTGTTGGTC TTCATCTGCA GCCCTCTTTT TCAGTAATTG GGTAGACCAT	120
GCGGTCTATC AGGAGACGCC TTTTGATTGG AGAAAGATAG AAGATGATGC ATCTGCATAT	180
GGGTATTTAT AAGAGGAATT ATGACATATT TAGACGCTTT TAAATCAGGT ACCTTGTTT	240
TACCGAGTGC CCGTCTCTTG CATTTTAAGG AACTCTTTCC TTCTAGCGAC GATTTTCTGG	300
TTTGCAATT TTTCTATTG CAAAATACGA CAGGCTTAGA AGAAATGTCG CCAAGCCAGA	360
TTGCTGAAAG GATTGGCAAG GAAATTTCGG ATGTCAACCA GTCCATTCT AATCTGACGG	420
AAAGGGGACT GCTCCAGTAT CGTACTATCG AATTAAATGG CGAAATTGAA TTGCTCTTTG	480
ATGCTAGTTT GGCCTTGGA CGTTTGATG ACCTGTTGG AGCAGTTCAT TCAAGTTCAG	540
ACCAGCTAAC ACCTCAAAAC CAGCTCAAGG ATTTGGTGGA AACCTTCCAG CAGGAGTTGG	600
GACGATTGTT GACGCCCTTT GAGATTGAGG ATTTGACCAA GACACTAAAG GAAGATGGAA	660
CCAGTGCTGA CTGATTAAG GAGGCTCTC GTGAAGCTGT TTTGAATGGA AAACCAAAT	720
GGAAGTACAT TCAGGCGATT TTGAGAACT GCGCCATGA AGGAATCAAG AGTGTGGCTC	780
AAATTGAGGC CAAGAGAGCA GAAAGAGAAG CAAGCAATCC TCAGTTGACA CAGGTATCTG	840
CAGATTTCAT AATGCCATG GATCTCTGGA AGGATTAATC CATGCAAGTA GGCTTGAAAT	900
CCGAGTAAGA TTTGCAAGCT GTGTATAATT GTGATAGAAT AAATAGAAAA TAAATTGAAA	960
AAAGAGGTAT GTGAAATGTC ACGTAAACCA TTTATCGCTG GTAACCTGGAA AATGAACAAA	1020
AATCCAGAAG AAGCTAAAGC ATTCGTTGAA GCAGTTGCAT CAAACTTCC TTCATCAGAT	1080
CTTGTTGAAG CAGGTATCGC TGCTCCAGCT CTTGATTTGA CAACTGTTCT TGCTGTTGCA	1140
AAAGGCTCAA ACCTTAAAGT TGCTGCTCAA AACTGCTACT TTGAAATGC AGGTGCTTTC	1200
ACTGGTGAAA CTAGCCACA AGTTTGAAG GAAATCGGT CTGACTACGT TGTTATCGGT	1260
CACTCAGAAC GCCGTGACTA CTTCCATGAA ACTGATGAAG ATATCAACAA AAAAGCAAAA	1320
GCAATCTTTG CGAACGGTAT GCTTCCAATC ATCTGTTGTG GTGAATCACT TGAAACTTAC	1380
GAAGCTGGTA AAGCTGCTGA ATTCGTAGGT GCTCAAGTAT CTGCTGCATT GGCTGGATTG	1440
ACTGCTGAAC AAGTTGCTGC CTCAGTTATC GCTTATGAGC CAATCTGGGC TATCGGTACT	1500

720

GGTAAATCAG	CTTCACAAGA	CGATGCACAA	AAAATGTGTA	AAGTTGTTTCG	TGACGTTGTA	1560
GCTGCTGACT	TTGGTCAAGA	AGTCGCAGAC	AAAGTTCGTG	TTCAATACGG	TGGTTCGTGT	1620
AAACCTGAAA	ATGTTGCTTC	ATACATGGCT	TGCCCAGACG	TTGACGGTGC	CCTTGTTAGGT	1680
GGTGCCTCAC	TTGAAGCTGA	AAGCTTCTTG	GCTTTGCTTG	ACTTTGTAAA	ATAATCAGTA	1740
AGTAGCAAAA	GCTAGGTGGA	ACAGCATTCA	GATGTCTGTT	ACATTTTTTA	TAGGAGAGAA	1800
AGATTGAAAA	CAAAAATTGG	ATTAGCAAGT	ATCTGTTTAC	TAGGCTTGGC	AACTAGTCAT	1860
GTCGCTGCAA	ATGAAACTGA	AGTAGCAAAA	ACTTCGCAGG	ATACAACGAC	AGCTTCAAGT	1920
AGTTCAGAGC	AAAATCAGTC	TTCTAATAAA	ACGCAAACGA	GCGCAGAACT	ACAGACTAAT	1980
GCTGCTGCCC	ACTGGGATGG	GGATTATTAT	GTAAAGGATG	ATGGTTCTAA	AGCTCAAAGT	2040
GAATGGATT	TTGACAACCTA	CTATAAGGCT	TGGTTTTATA	TTAATTCAGA	TGGTCGTTAC	2100
TCGCAGAATG	AATGGCATGG	AAATTACTAC	CTGAAATCAG	GTGGATATAT	GGCCCAAAAC	2160
GAGTGGATCT	ATGACAGTAA	TTACAAGAGT	TGGTTTTATC	TCAAGTCAGA	TGGGGCTTAT	2220
GCTCATCAAG	AATGGCAATT	GATTGGAAAT	AAGTGGTACT	ACTTCAAGAA	GTGGGGTTAC	2280
ATGGCTAAAA	GCCAAATGGCA	AGGAAGTTAT	TTCTTGAATG	GTCAAGGAGC	TATGATGCAA	2340
AATGAATGGC	TCTATGATCC	AGCCTATTCT	GCTTATTTTT	ATCTAAATC	CGATGGAAT	2400
TATGCTAACC	AAGAGTGGCA	AAAAGTGGGC	GGCAAATGGT	ACTATTTCAA	GAAGTGGGGC	2460
TATATGGCTC	GGAATGAGTG	GCAAGGCAAC	TACTATTTGA	CTGGAAGTGG	TGCCATGGCG	2520
ACTGACGAAG	TGATTATGGA	TGGTACTCGC	TATATCTTTG	CGGCCTCTGG	TGAGCTCAAA	2580
GAAAAAAAAG	ATTTGAATGT	CGGCTGGGTT	CACAGAGATG	GTAAGCGCTA	TTTCTTTAAT	2640
AATAGAGAAG	AACAAGTGGG	AACCGAACAT	GCTAAGAAAG	TCATTGATAT	TAGTGAGCAC	2700
AATGGTCGTA	TCAATGATTG	GAAAAAGGTT	ATTGATGAGA	ACGAAGTGGG	TGGTGTCAAT	2760
GTTTCGTCTAG	GTTATAGCGG	TAAAGAAGAC	AAGGAATTGG	CGCATAACAT	TAAGGAGTTA	2820
AACCGTCTGG	GAATTCCTTA	TGGTGTCTAT	CTCTATACCT	ATGCTGAAAA	TGAGACCGAT	2880
GCTGAGAGTG	ACGCTAAACA	GACCATTGAA	CTTATAAAGA	AATACAATAT	GAACCTGTCT	2940
TACCCTATCT	ATTATGATGT	TGAGAATTGG	GAATATGTAA	ATAAGAGCAA	GAGAGCTCCA	3000
AGTGATACAG	GCACTTGGGT	TAAAATCATC	AACAAGTACA	TGGACACGAT	GAAGCAGGCG	3060
GGTTATCAAA	ATGTGTATGT	CTATAGCTAT	CGTAGTTTAT	TACAGACGCG	TTTAAAACAC	3120
CCAGATATTT	TAAAACATGT	AAACTGGGTA	GCGGCCTATA	CGAATGCTTT	AGAATGGGAA	3180
AACCTCATTT	ATTCAGGAAA	AAAAGGTTGG	CAATATACCT	CTTCTGAATA	CATGAAAGGA	3240
ATCCAAGGGC	GCGTAGATGT	CAGCGTTTGG	TATTAAGCGA	TGATTTGAAA	GAGGGATGTG	3300

721

ATAGTAGCAC CCTCTTTTTC TTTGTTTTAT GATAGTTCAT CCTCGAGTAA ATTCAAGTTC	3360
TTGCTCGGAA ATGAAGCTTA TATAGTAGAT TGAATATAGA CAAATACCTT GTGATTGGTA	3420
AAACATTTTA GAAATTCATT TACCTTTCCT AATCGACTTG GTTTCATCTT ATTCAATCT	3480
ATTATAGTAT TGGGGAATTT CTTCAAACCA CATCAGCTTG GTCAGTTCTA CCTGCGACCT	3540
CAAAACTTGT GCTTTGGTCA AGCTGGGTTT AGTTTCCTAG TTTGCTGATG GATTTCCATT	3600
GACTATAAGC ATCCAACCCT CTTTTGTCT TCTAAAGAAT TCTTAAATTA TCAGTCTATT	3660
GCAACTTTTC TCATATAAGT TCTTTGTCTT GCTATTGGTT TTCCTTAGTA GTATACTAAG	3720
GTAGTAATCA TTAAGAAGTG GTTACAAAA ATAATGAATG AGGTAAAGAA AATGGTAGAA	3780
TTGAAAAAAG AAGCAGTAAA AGACGTAACA TCATTGACAA AAGCAGCGCC GG	3832

(2) INFORMATION FOR SEQ ID NO: 93:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10690 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 93:

TGAAAAAATC CTCATGAACC TGGCGCCAAT AGACAAGTGT CTGTTCCTCC TCACCTTCCT	60
TATAGGCATG GTCAGCTGAC ACTCGATTGA AGGGTTTAAC AGAAACCTTT GTAATTTCGA	120
CAATGCAGAC AGCCTGATTT TGACTATCTA AAATGACATC GAAGGTCCCT ACTTGGGGAA	180
GTGGTTCGTC TTCTAGCACA TAGAGGTCAT AGGCTGATGC TGTGCTGTC TTTTCTCCTT	240
TAAACACCAA ATCCGCTAAA AGGTCTGGTT CAACTCCAAA AGCCCAGGCA TCGATTTTCAT	300
CTCCGATCAA AGGATTGATT TGCTTGATTT TATTCCACAT TTCTTGCGGT ATCATGGGTG	360
CTCCTTTGTA ATTTTTTACT TTCTTCTTTT ATGTGTTTAA GATGATCTGG ATGGTCAATC	420
TCTAAATCAA AAATCTCTGG AATAGAATG TAGTGGATAA TGCACTTGAT ACCCAACTGA	480
TTCAATTTTT GTATGAAAGA AGTATTCAGA TAGCCTGCTA CAGCAAAATC AATCTTGTTT	540
TTTCTTGCTT TATCCTGCAT ATCTCTTAGC ATATCTAACA TTATTGGACT TTCCATATCA	600
TGCCATTGAC TGTTTCTCAT AGTCGCAAAA ACAAGGAAG TCAAATCATT CATTCCAAT	660
ACAATCTTTG AAATGCCCGT TTCCAGTATA CTAGATAAGT CAAAATACGC TGACGGTAAT	720
TCAATCATCG TTCCGACTTT CCCAGTAAAA CCCTGCTGAC GCAATACTGT AATAGCTTGT	780
TTTAATTGGT CGGCATCATT GACAAAAGGA AAGATAACAG ATAGATTGGG GTTGGTTTGA	840

722					
TAAACTTCTG	TAACGACATG	TGCTTCAGCC	TGAAATTCAT	CCAAACACGC	CAGTAAACGC 900
CTAGTTCCTC	TATAGCCAAA	CAAGGGATGC	CCTTCGTCAA	AAAACCTCTT	AGTCCCCACT 960
AAACAATTGG	CTTCTGTATT	CGTTAATTCA	GTAAAACGAT	ACCAAACCTC	CTTACCTAAG 1020
TAAAAGGAGC	AAATAGTATC	AAGATAATCT	TTCACAAATT	CCTGACAAC	TTGTAATAGT 1080
ATATTTTGAT	TGAGCTCTCT	CAATAAGTAT	TCCCCACGAA	TCATGCCGAC	GTGGTGAAAT 1140
AGTTGAGGAT	AAATTTTTC	AAGAATTTT	TCGCCACTAA	GGGCAAGTTG	ATTTCTCATC 1200
ATTACCTTC	CAATTCATGT	AAGAAGTCTT	GTCCAGTTCT	GGAAATCCTA	ATAATTCAGA 1260
CTTAACCTTC	AAGACTAATG	GCGATGCATT	TTCCTCTGTA	ATCTCTTGAA	TATCCATCCA 1320
AATATATCCA	AGTGAATCAT	TCGCACCATC	AGACACAGCT	TCCGAAATCG	TAACTTGAGG 1380
TGCACTCTCA	TTCATTTCAA	CATCATACAA	GGCTATGACA	TGGTGAACCA	TAAAATTTT 1440
TAACTCTTCC	CTGACGAAAA	CATCGTAGAT	TCGAGGATTA	GAGTAGCTTC	TAACAGTAAA 1500
TCCCGTCTCT	TCCATAACTT	CTCTAGTCAG	CGTTTCCGTC	AGTCCTTCAC	CAAGTTGCTG 1560
ACTGCCTCCA	GGTAGATCAT	ACCGATGTTG	ATAAGGGCCT	CTCGTTTTTT	CAATGCAAAG 1620
TAACTTTCCA	TTTCAAAGC	AAACACAGTA	GACCCCAAAG	TGATTTTGA	TTTCCATCCA 1680
ACTCCTCCTA	CTTCAAAGAC	CAGCCACCAT	CTATTGTCAA	GATTGTCTCT	TGCATGGCGC 1740
TCGCTTTTCC	ACTTGCTAAA	AAAAGACTAA	GCTCTGCTAT	TTCCTCTGGC	TCAATCCAGC 1800
GCTTGATTGG	GGTTTCACTA	GCCACCCAGT	CAGCCAAACC	ACCTGGTTCA	AAATCCGCAG 1860
CGGTACATAGC	TGTCTTGACT	GCTCCTGGAG	CGATACCAA	GACCTGAATC	CCAGCTTCAG 1920
CATAGTCTAG	AGCCAACATG	TTGGTGAAGC	CAGCCAAGGC	ATGCTTGGAT	GAAGTATAGG 1980
CGTGACCACC	TCCACCTGCT	AGGCTAGAAG	CAATGGAACA	CATATTGATG	ATGATTCCCT 2040
TTTTATTTTC	CAGCATTTGT	GTCAAATAAT	ACCGAGTCAA	CTCTACTGGA	ATAATGTAGT 2100
TGATTTCAAA	AATCTCTTGA	ATGTCCTGCG	CCGTTTGTTT	CAACAGTGGT	TTGTAATCAT 2160
CCAAAACCTCC	AGCAGTATTA	CACAAAACAT	CCACCTGAGG	GCACCACTCA	AAAATAGGTT 2220
CCAAGTCCAA	GGTCAAATCT	CTCTGTAAAA	AGCGAAAATC	ACCCTCTAAG	AGTGGCTTTT 2280
CACCTTGGTC	AACTCCATAA	ACTTGATAGC	CCTTCTCTAA	AAAGAGGCGA	GCTTGAGCCA 2340
ATCCGATCCC	TGAACTCACT	CCTGTAATGA	GTACACGTTT	AGTCATGCAC	TTCTACCCAA 2400
TCCGTTGCCA	AAACATCACA	AACTGTCGGG	CTCCACATGG	AAAAACCTTC	TCCTTCGCCA 2460
GAAACGTTGA	TTAGGAAATA	AGGTGTCATT	TCAAGTGCAA	GCCCATTTTG	CTCGATGGTA 2520
TCAAAGAGTT	GGACATAGTT	TTCCGCACCT	CCCCAACCAG	TCGTACATA	TTTTCTCTTA 2580
GCCTTTAACC	CAGGCAGGAT	CTCTTCAAAT	GTATGTTTTT	TCTCCTTTAA	TTCTACATTC 2640

TTCATTTAAT TATAGCAAAA AACCGCTTTA TACGGCTTTT TGAATGTGAG TTATTCAAAC	2700
CTGCTACTAC TTACGGCAAA TTATTCCTTG CAGCAAGATA AATTCATAC CATTCCTTTC	2760
TTGTTAAGCT AAAGTTGCC GCTCGGCTAA CTTCTCTCAA GTGCTTAGGA TTTGTTGTAC	2820
CTACGACTGC CTGCATTTT GCTGGATAAC GCAATATCCA AGAAATGGCA ATAGTTGAAG	2880
AGGTACTCC ATATTTAATA GCTAAACGAT CAAGTACTTG ATTTAAAGCT TGAAATTTCT	2940
CATTTCCAAC AAAATTCCT TTAATAACC CGAATGTAA GACAGACCAT GCTTGAATGA	3000
CCACATCGTG TAATTGGCAA TATTCAAAA TGCTGCCATC TCGCATAGCT GCTTGACTAT	3060
CTTCCATATT AACATGAAAA GCTGATTCAA ATCCTGGAGT AAAAGCCGCA CTCAATTGTA	3120
GCTGATTAA AGCTAACGGC TGCTTGACAT CTTTTTAAAG CAACTCCATC ATCATAGGAT	3180
TTTGATTAGA AACTCCAAA TCTCGAATC TACCTTGTTC ATAAAGGAGA TTAAAGGCTT	3240
CTGCTACTTG GTCAGATTCC ATCAAAGCAT CTGGTCGATG AAGGAGCAAG CTATCTAGAT	3300
GATCAATCTT CAATCTTGC AAAATACCGT CTAATGATTT TATAATATAG TCCTTAGAAA	3360
AATCAAAATA GGTAATCTT TCAATGCGAA TGCCACATTT GGAATGAATC CACATCTTTT	3420
CTCTTAAATC TGGACGATTT TTTAGGACAA GACCTAACAG TTCTTCACAA CGACCACGAC	3480
CATAAATATC AGCCAAGTCG AAGGCATTGA TTCCAACAGA AAGTGCTGTT TCTACAAGCT	3540
CTTCAACTTC TTTTACAGAT TTATCTTTTA TTCTCATCAT TCCGAGAACA ATTTCTGATA	3600
ATTCTTTGTC ATCTTGACCA AGAGTTATGT ATCTCATCAA ATTTTCTCC TTAAATTTCT	3660
AACATCTTTC CCTTCATTAT AACAAAAAC CGCTTTGCAA CGACTTTTTC ACTATACTTC	3720
ACTCCATTTT ATCTCTTAA ACCCACGGAA CAAGACAAAG ATTCCAATAA AGAGGACAGC	3780
TAAAGGAATA ACTTTTGTA GGAATACATT TGAAATTTCC ATCCACTCAT AATAACGGAG	3840
CAGAGAACCC ACCACAAGAT GGGCAATAAT CATACTGACA AATGGACGAA AGACCGCTTC	3900
TTTCCAATTC CAAATACCGA TAACTAGCGA AATCGTAAAG ACAGACAAAC TATCCCAGGG	3960
AGCCGGAATA TAAAGGCTC CTTCTGTAT GAAGCTTGCC ATCTCTACAT ATCCTAAAAC	4020
AACTAGAAGA ACTATAGTCC CAACAACAAT GTAAGTGCCA ATTTTCATTT TAGGAGAATC	4080
TTGGACTAAA CTTCTTCGTA AAATGTGGC CACAAGTCCA AATCCAATCA GAAAAATAAG	4140
AAGTTGCCCT AAAAATGTGA GCAAATTGAC TGTTAAGAGA GGACCTTTAG AAAAATCACT	4200
TAGTAGTTGA TAATAACGTA ATACCGCCAG GACAAGAATT GGCGTCAAAA GGGACTCTTT	4260
GATAGAAGCT CGAGGTGCTC CCTTGAGAAT CTCTTTCATT ATTTTCTTAG GATTCTTACC	4320
TAGATAATCC TCTGCACTCA TGCCATCTCG TTCTGCTTCT GAGAAATCTA GCATCATCAA	4380

724

ATAGATCTGC TCTCTGAGAT AGTCTTCATC ATAGAGAAAT CCAGCAAGAT TAAAACTTTC	4440
CCACAACCTCC TCAAAATACT TTTGATTCTC CTCAGAAAAC TCATGTAGCA AAGCGCTTGT	4500
TTCTTCGTAA TACTTCATTT TCTTCATGGT TTAACCCCA TTCTTAATCC CTTCTACTTT	4560
TTGACTCAAA TCGTCCCATT GTTGCCAAAA GACTGAGACA CGCTCTTCTC CTTCTTTTCA	4620
TAATGAAAAA TACTTCCGAT CTGGACCATC TGGCGACGGG CGCATGTCGC CTCCTTATCCA	4680
TTGATTTTTT TCTAACTTTT GCAACAAAGG ATAAATAGTT CCTGGAACGA TAGTATCAAA	4740
TCCAGCCTCT CGCAAAGTCT GAACCAACTC ATAACCATAC CGCTCTTTT GACCAATCAT	4800
ATCCAAGACA CAACCTTCAA GAACACCTTT TAATAGCTGA GTTCTTTTCA TCACCTCTCC	4860
CTTCTAATCT ATTTTGTAAT ACCTACTAGT GACTTCACCT ATAGTATATC ACTTCTACAC	4920
TAGTTTGTA AGCATAATAG TTAATACTCT TCGAAAATCT CTTCAAACCA CGTCAGCGTC	4980
GCCCTACCGT ATGTATGGTT ACTGACTTCG TCAGTTTCAT CTACAACCTC AAAAACATGT	5040
TTTGAGCTGA CTTGCTCAGT TTCATCTACA ACCTCAAAAC AGTGTTTGA GCTGACTTCG	5100
TCAGTTTCAT CTACAACCTC AAAACAGTGT TTTGAGCTGA CTTGCTCAGT TTCATCTACA	5160
ACCTCAAAAA CATGTTTGA GCTGACTTCG TCAGTTTCGT CTACAACCTC AAAACAGTGT	5220
TTTGAGCAAC CTGCGGCTAG CTTCTAGTT TGCTCTTGA TTTTCATTGA GTATAAATA	5280
AAAAACAGAA CTAGCCTGAA CTAGTCCTGT CTACTTTTAC CCAATCACAC TTCCATTGG	5340
TACAGCTGGA TCAACTGTGA GAAGGGTTAA TTTGCCATCA TGTTGAGCTG AGAGAATCAT	5400
ACCCTGGCTG ACATATTTTT TCATCATTTT ACGTGGTTTG AGGTTAGCAA CGATTGTAAC	5460
TTTCTTGCCG ACCAATTCTT GTTCATTGG ATAGTATTTT GCAATTCCTG AAAGAATCTG	5520
ACGATCTTCT CCATCACCAG CATCCAAGCG GAATTGAAGC AACTTATCTG AACCTTCTAC	5580
TTTAGACACT TCTTTGACTT CTGCGACACG GATTTCAACC TTGTCAAAGT CTTCAAACCT	5640
GATTTTCATCC TTGTTTAGTT TGAGCTCAAC TTCGTCCGGA TTCCATTCTT TTTCGACTGC	5700
TGGTTTATG CTTTCCATTT GTTCCTTGAT ATAGGCGATT TCTTCTTCCA TATTTAGACG	5760
TGGAAGATA GGTGTTCCCT TGSCAACTAC AGTCACATCT GCTGGGAAGT CAGCCAAACT	5820
CAAGTTTCA AGACTAGAAA CTTCTTCCAA ACCAAGTTGA GTCAAACTG CACGACTAGT	5880
TTCCATCATA AATGGTTCAA TCAAGTGAGC AACTACACGA ATGCTGGCTG CCAAGTGGCT	5940
CATGACACTT GCCAATTGGT CACGAAGAGC TTCATCCTTG GCCAAGACCC ATGGTGCGGT	6000
CTCATCGATG TATTTATTGG TACGAGAGAT CAGAGTCCAG ACTGCTTCAA GCGCACGTGG	6060
ATAGTCAACT GCTTCCATGT GTGTATGGAA GTCTGCGATT GATTGTWCTG CAACCTCAGC	6120
AAGAACATGA TCATATTCAG TCACACCTTC TACATAGGCA GGGATTGTGTC CATCAAAGTA	6180

725

CTTATTAATC ATGGAACCG TACGGTTAAG GAGGTTCCCA AGGTCATTAG CCAATTCATA	6240
GTTGATACGG CCGACATAGT CTTCAGGAGT AAAGGTTCCG TCTGAACCAA CTGGAAGGTT	6300
ACGCATGAGG TAGTAACGAA GTGGATCTAG TCCATAACGC TCTACCAACA TTTCAGGGTA	6360
AACGACATTC CCTTTTGACT TAGACATTTT TCCGCTTTTC ATGACAAACC AACCATGGGC	6420
AATCAAACGA TCAGGTAATT TAACATCCAA CATCATAAGA AGGATTGGCC AGTAGATAGA	6480
GTGGAAGCGA AGGATATCTT TTCTTACCAT ATGGAAGACT GTTCCATTCC AGAACTTGTC	6540
AAAGTTACCA TGTTCTGCTT GAGCGTAGCC AAGAGCTGTC GCATAGTTAA GAAGGGCATC	6600
AATCCAAACG TAGACAACGT GTTTTGATT TGATGGGACA GGCCTCCCC ATGTAAAGGT	6660
TGTACGAGAT ACCGCCAAAT CTTCCAAGCC TGGCTCGATG AAGTTGCGTA GCATTTTATT	6720
AAGGCGACCA TCTGGCGTGA TAAATTCAGG ATGAGCTTTG AAAAATTCGA CCAACCGGTC	6780
TTGGTATTTG CTAAGGCGAA GGAAGTATGA TTCTTCAGAA ACCCATTCAA CCTCATGACC	6840
TGATGGAGCA ATACCACCAG TCACATTTCC AGCTTCATCA CGGAAACTT CTGCCAGCTG	6900
GCTTTCTGTA AAGAATTCCT CGTCTGATAC TGAATACCAA CCAGAGTATT CACCCAAGTA	6960
GATATCATCT TGAGCAAGTA AGCGTTCAA GACTTGTGCG ACAACTTTTT CATGGTAGTC	7020
ATCAGTTGTA CGGATAAATT TATCGTATGA GATATCTAGT AATTGCCAGA GTTCTTTAAC	7080
TCCAACGCC ATTCCATCAA CATAGGCTTG AGGTGTAATA CCAGCTTCTT CCGCTTTCTG	7140
CTGGATTTTC TGACCATGTT CATCAAGACC TGTGAGATAA AATACATCGT AGCCCATCAG	7200
CGGTTTGTA CGTGCTAGGA CATCACATGC GATAGTTGTG TAGGCAGAAC CGATATGAAG	7260
TTTCCCAGAT GGATAGTAAA TCGGCGTTGT AATATAAAAA TTTTTTTCAG ACATAATTTT	7320
TCCTTTCCAG GCAATGAAA CCTGTTTTTC TAACACTTCA TTATATCACA TTTTAAATGA	7380
ATTTCAATAG GGAATCCAT ACAAAAACAA GATAGACGAG TGTCCATCTT GTTGATCTCA	7440
TTCATAACGA AGGGCTTCAA TTGGATCAAG TTTCGATGCC TTGTTGGCTG GCAAGACTCC	7500
AAAAATCATA CCAACTAG CCGAACTGC AAGACTAAAT AGGGCGACTG GGATTGATAC	7560
TCCAACCTCT ATACCTTCTA TTAAACCTTG CAGTAACAAA CCTGCTAAGG CAGTTAAACC	7620
ACTTGCAATT GTCAAGCCAA TTAAGCCACC TAACAAGGTC AAAATCATGG ATTCAATCAA	7680
AAACTGAATT AAAATATTGG CACGTGTTGC ACCCAAAGCC TTACGAAGAC CAATCTCAGC	7740
AGTGCGCTCT GTCACCGAAA CCAGCATGAT GTTCATGACA CCAGTTCCTC CAACAAAGAG	7800
AGAAATCCCT GCGATGGAAC TAATAATCGT CGTCATAAAA CTAAACGATT GTTGAATTTT	7860
TGCAAATACA ACGGACTCAT CTGCCACCTG GTATTCTCCC TGTGTAAAGC CTGCAAGCTC	7920

726

TGTCATTTTT	CGTGCCAGTT	CTGGACCCAG	AGTTGGGGTT	AACTGGTAT	CATTCACTCG	7980
AAAGACAATA	TTAGCTATTT	CATCTACATT	AAAATTCGCA	GCAAGGGAGA	TATTGGTAGT	8040
AATAGGCAAG	CCACCAAACC	CATATATTTT	TGATCTTTTA	GCCTCCGGAC	TAGTATAAAC	8100
CCCAATGACC	CGGTAACATA	ATCCATTGAC	TTCTACAACC	TTGTTAATAG	CCTCTTGAGG	8160
AGATTCAAAT	AACTAATGG	ACAATTCCTC	ATCTAGCAAA	ATGACACTTG	CAAACCTCTT	8220
GAAATCTTGC	TCTCTCAGAC	TACGACCTGC	AATAATTTC	TTCTTAACAG	CGTCCATGTA	8280
AGTTCGTGTT	CCACCTGTCA	AATTAGCATT	CTCAACCTTT	TTATCTTGAT	AGGTCAAGAT	8340
GGCATTCTGT	GAATTGGTTA	CATAGTAACT	ATCCACTCCC	TTCAGTTTAG	CTGCCTCTTG	8400
GACCCAGGAT	TCTTGCAGTT	TTGGCGGTT	AACAGGAACT	TCCTCTTCCT	TTCCAGAAAC	8460
CGTAAAGCT	GATTGTTTCT	GAGTAAAGA	CCCGTCTTTA	CTTTTTTTAG	GAGAGAAAAA	8520
GACGCTAATA	TTTTCTGAG	ATTTAGTCAT	ATCTTTATTG	ACTTGACGAG	ATAGGGAATC	8580
ACCCAAAGCC	ATAATCACA	CAACTGATGA	AACACCGATA	ATAATCCCAA	TCATAGTAAG	8640
CAAAGAACGC	ATCTTGTGAG	CCATGATAGA	TGAAAAGGCA	AATTCAGAT	TCTGCATCTT	8700
AGTTTCTCCT	CTTCTCTAAC	TGAGCACTGT	CAGACGAAAT	GACCCCATCC	CGAATGACAA	8760
TCTGACGTTT	GGCATAGGCA	GCAATCTCAG	GCTCATGCGT	TACCATGATA	ATGGTTTTTC	8820
CTTCTTTATT	CAATCAACC	AATAATTGCA	TAATTTGGTT	ACCTGTTTGT	GTATCCAAGG	8880
CTCCTGTGCG	TTTATCCGCT	AGGATAATAG	AAGGATTGTT	TACCAAGGCA	CGCGCAATGG	8940
CTACACGTTG	CTTTTGACCA	CCAGATAATT	CTGAAGGTAA	ATGGTGACTA	CGTTCTGTCA	9000
ATTCAACCTT	GTCTAAATAT	TCCTCAGCCA	ACTTGCGACG	TTTGAAGAC	GAAACTCCTG	9060
CGTAAATCAA	GGCAATTCT	ACATTTTGCA	GAGCATTGAG	CTTCGATAGA	AGAAAGAACT	9120
GCTGAAAGAC	AAAACCGATT	TGTTGGTTAC	GGACCTTAGC	TAGTTGTTTT	TCACCAAGCC	9180
CAGCCACTTC	TTGACCTTCA	AGATAATATT	CTCCACTGGT	TGGTGATATC	AACATGCCAA	9240
TCGTATTCAT	CAGAGTGGAC	TTACCAGACC	CAGATGGTCC	CATGATGGCT	ACAAATTCAC	9300
CCTCATTCAC	TTCTAGATTG	ATATTTTGA	GAACCTGCAG	TTCTTGGTCA	CCATTACGGT	9360
AACTTCTGAA	GATATTTTTT	AGACTAATTA	GTTGCTTCAT	CAGCCTTCAC	CTCTTTTCCT	9420
TCTTCCAAGG	AAGATGTTGG	ATTACTGATG	ACCTTAGCAC	CGTTCGTAA	ACCAGAAGTG	9480
ATTCTTGAT	TTTCTGCGTC	AGCATTTCCC	AATGAAACCT	CAACTTTTTT	AGCCTTTTGT	9540
TGTTCAATCCA	CAATCCAGAC	ATAATTTTAA	CTATCATCCA	TTACTAGACT	GCTAACAGGA	9600
ACAAGAATAG	CCTTAGTTTT	GCTTTTAACC	TCAATGTTGA	CAGAAAAACC	TTGTTTCAAA	9660
TCACCAACCT	CGCCTGTCAC	ATCAATAGTA	TAAGGGTATT	TAGAACCTGT	ATTATTTCCG	9720

727

GCTGCTGGAC TAGCTGCTTC ACCATTGTTT TTAGGATAGT CAGAAATATA GCTTAATTTTC 9780
 CCAGTCCATT TTTTATCAGG ATACACTTTA GAAGTAAAGC TTACTTCTTG ACCTACAGAA 9840
 AGGTGGCTA GATTGTACTC AGACAATTCT CCCTTGACTT GTAAATTTTC ATTGCTGACA 9900
 ATATGAACCA TAACCTGACT CGCCCTGTT GGAGATTTAG AAACATTGCT ATTGACTTCG 9960
 ACCACAGTTC CCTCTAGGGT ACTGAGAACA GTTGTGTCAT CCAATTGACT TTGAGCCTTG 10020
 CTTAATTGCG CCGCAGCATC TGCACGCGCA TCACGGGCAT CACCCAATTG AGCGTCAATA 10080
 GAAGCAACG AATTTCAGC CACTGGAGTT GGGCTTTGCA CCGTTGCATC TTCTCCTCCT 10140
 ACTGGCGCTG GTAACGTGG AGCCGGAGCT GAAGCGGCTT CATTTCTGTC TTGATTGAGT 10200
 TCATTGATAT GACGATCTGC CCTAGCTACT GCTCGACTAG CTGAATCATA GGCCGCCTGC 10260
 GCTTCTGAAC TACTGTACTT GACTAAAGCC TGCCCTTCGC TGACCTTATC GCCACAGAA 10320
 ACAAGGATTT CATCTAAATC ACCCTTACTA GCATCAAAAT AAACATATTG TTCATTTTTT 10380
 GCTGTTACTG TCCCTGACAA TAAACAGAG GAGGCCACGC TTCCTTCCTT GGCAACAACA 10440
 AGATGAGTAG GCTCATCTTT TAGAGCAGTC TGAGAAGGTT GTCTAAAGAG TAAATCCCC 10500
 CCAGCACCCA ATACAACCTAC ACTCGCAGCA CCGATTGCTG CATACAGTTG CCACTTTTTA 10560
 GCTTTACCAT TCTTTTTCTT CATAATGAAA CTCCTTTTCT TTTTACAAT ACTTTGCTAT 10620
 TATACCAAAAT TTCCTCCAG CAAACAATAC AGTTCAGGAT TAAACAATCG TTCGGAATTT 10680
 TGCTTTTCGG 10690

(2) INFORMATION FOR SEQ ID NO: 94:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8195 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 94:

GAGAAAGCGC CCACGTTTCC CCGAAGGGAG AAAGGCGGAC AGGTATCCGG TAAGCGGCCA 60
 GGGTCGGAAC AGGAGAGCGC AACGAGGGAG CTTCCAGGG GGAAACGCCT GGTATCTTTA 120
 TAGTCTGTC GGGTTTCGCC ACCTCTGACT TGAGCGTCGA TTTTGTGAT GTCGTCAGG 180
 GGGGCGGAGC CTATGGAAAA ACGCCAGCAA CGCGGCCTTT TTACGGTTCC TGGCCTTTTG 240
 CTGGCCTTTT GCTCACATGT TCTTTCCTGC GTTATCCCCT GATTCTGTGG ATAACCGTAT 300
 TACCGCCTTT GAGTGAGCTG ATACCGCTCG CCGCAGCCGA ACGACCGAGC GCAGCGAGTC 360

728

AGTGAGCGAG GAAGCGGAAG AGCGCCCAAT ACGCAAACCG CCTCTCCCCG CGCGTTGGCC	420
GATTCATTAA TGCAGCTGGC ACGACAGGTT TCCCGACTGG AAAGCGGGCA GTGAGCGCAA	480
CGCAATTAAT GTGAGTTAGC TCACTCATTA GGCACCCAG GCTTTACACT TTATGCTTCC	540
GGCTCGTATG TTGTGTGGAA TTGTGAGCGG ATAACAATTT CACACAGGAA ACAGCTATGA	600
CaTGATTACG AATTCGAGCT CGGTACCCGG AAAATCCAGA AAATGCTTGA AAAAAATCCT	660
AGAAGATGGT ATAATACTAA ATTGTAAGGG TTATCACATA TAACTCAAAA AAAGAAAGAA	720
CAAAAGGAGA GTCAAACATAT GGCTTCTAAA GATTTCACG TAGTGGCAGA AACAGGTATT	780
CACGCACGTC CAGCAACATT GTTGGTACAA ACTGCTAGCA AATTTGCTTC AGATATCACT	840
CTTGAGTACA AAGGTAAATC AGTTAACCTT AAATCAATTA TGGGTGTTAT GAGTCTTGGT	900
GTTGGCCAAAG GTGCTGACGT AACTATCTCA GCTGAAGGTG CAGATGCAGA TGACGCTATC	960
GCTGCAATCT CAGAAACAAT GGAAAAAGAA GGATTGGCAT AAGGGAAATG ACAGAAATGC	1020
TTAAAGGAAT CGCAGCATCT GACGGTGTG CAGTTGCAAA AGCATATCTA CTCGTTACGC	1080
CGGATTTGTC ATTTGAGACT ATTACAGTCG AAGATACAAA CGCAGAAGAA GCTCGCCTTG	1140
ATGCCGCTCT ACAGGCATCA CAAGACGAGC TTTCTGTTAT TCGCGAGAAA GCAGTAGGTA	1200
CGCTCGGTGA AGAAGCAGCT CAAGTTTTTG ATGCTCACTT AATGGTTCIT GCTGACCCAG	1260
AAATGATCAG CCAATCAAG GAACTATCC GTGCGAAGAA AGTGAATGCA GAAGCAGGTC	1320
TGAAGAAGT TACAGATATG TTTATCACTA TCTTTGAAGG CATGGAAGAC AACCCATACA	1380
TGCAAGAACG CGCAGcGGAT wTCCGCGACG TGACAAAACG TGTATTGGCA AACCTTCTTG	1440
GTAAAAAATT GCCAAACCCA GCTTCTATCA ATGAAGAAGT GATTGTGATT GCGCATGACT	1500
TGACTCCTTC AGATACAGCT CAATTGACA AAAACTTTGT AAAAGCTTTT GTAACCAACA	1560
TTGGTGGACG TACAAGCCAC TCAGCTATCA TGGCACGTAC ACTTGAAATT GCTGCTGTAT	1620
TAGGTACAAA TAACATCACT GAAATCGTTA AAGACGGTGA CATCCTTGCT GTTAACGGGA	1680
TCACTGGAGA AGTGATTATC AACCCAACAG ATGAACAAGC GGCAGAATTT AAAGCAGCTG	1740
GTGAAGCCTA TGCGAACAA AAAGCTGAAT GGGCACTTTT GAAAGATGCT CAAACAGTGA	1800
CTGCTGACGG TAAACACTTC GAGTTGGCTG CTAATATCGG TACTCCAAAA GACGTTGAAG	1860
GTGTTAACAA CAACGGTGCA GAAGCTGTTG GACTTTACCG TACAGAGTTC TTGTACATGG	1920
ATTCTCAAGA CTTCCCAACT GAAGATGAGC AGTATGAAGC ATACAAGGCT GTTCTTGAAG	1980
GAATGAACGG TAAACCTGTT GTCGTTTCGTA CAATGGATAT CGGTGGAGAT AAGGAACTTC	2040
CTTACTTCGA TATGCCTCAC GAAATGAACC CATTCCTTGG ATTCCTGTCT CTTGCTATCT	2100
CTATCTCTGA GACTGGAGAT GCTATGTTCC GCACACAAAT CCGTGCTCTT CTTGCTGCGT	2160

CTGTTACCGG TCAATTGCGT ATCATGTTCC CAATGGTTGC GCTCTTGAAA GAATTCCTG	2220
CAGCGAAAGC AGTCTTTGAT GAAGAAAAAG CAAACCTTCT TGCTGAAGGT GTTGCAGTTG	2280
CGGATAACAT CCAAGTTGGT ATCATGATCG AGATTCCTGC AGCGGCTATG CTTGCAGACC	2340
AATTTGCTAA AGAAGTTGAC TTCTTCTCAA TTGGTACAAA CGACTTGATC CAATATACAA	2400
TGGCAGCAGA CCGTATGAAC GAACAAGTTT CATACTTTA CCAACCATAC AACCCATCAA	2460
TCCTACGCTT GATTAACAAT GTGATCAAAG CAGCTCACGC TGAAGGTAAA TGGGCTGGTA	2520
TGTGTGGTGA GATGGCTGGT GACCAACAAG CTGTTCCACT TCTGTTCGGA ATGGGCTTGG	2580
ATGAGTTCTC TATGTCAGCA ACATCTGTAC TTCGTACACG CAGCTTGATG AAGAACTCG	2640
ACACAGCTAA GATGGAAGAG TACGCAAACC GTGCCCTTAC AGAATGCTCA ACAATGGAAG	2700
AAGTTCTTGA ACTTCAAAAA GAATACGTTA ATTTTGATTA ATCGAAAAGT CCCTGCAACT	2760
CAGTTACAGG GATTTTTTTG ATATTTTAAA AAGAATTTTC AAGAAAATCT TTCTTATAGA	2820
AAGTCCAACC TTGAAAAAGT AGTGGTCAGA AAAAAAATA CTTAAATGGT TCATAAAATT	2880
CTTGACAAGT TGGATATTTA GGAGTAAACT ATTAACCAGT TAAGTAATAG AGAGGAGTTT	2940
CTGCAATTTA GAAATGAATT GCAACTAGAA ATATCAAATA GAAAGAGAGT TTCGATGAAA	3000
ATTAATAAGA AATACCTTGT TGGTCTGCG GCACTTTGAT TTTAAGTGT TGTCTTACG	3060
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GAATCAATGC TGAGCAAATC GTCATCAAGA TAACAGACCA AGGCTATGTC ACTTCACATG	3240
GCGACCACTA TCATTATTAC AATGGTAAGG TTCCTTATGA CGCTATCATC AGTGAAGAAT	3300
TACTCATGAA AGATCCAAAC TATAAGCTAA AAGATGAGGA TATTGTTAAT GAGGTCAAGG	3360
GTGGATATGT TATCAAGGTA GATGGAAAAT ACTATGTTTA CCTTAAGGAT GCTGCCACG	3420
CGGATAACGT CCGTACAAAA GAGGAAATCA ATCGACAAAA ACAAGAGCAT AGTCAACATC	3480
GTGAAGGTGG AACTCCAAGA AACGATGGTG CTGTTGCCTT GGCACGTTTCG CAAGGACGCT	3540
ATACTACAGA TGATGGTTAT ATCTTTAATG CTTCTGATAT CATAGAGGAT ACTGGTGATG	3600
CTTATATCGT TCCTCATGGA GATCATTACC ATTACATTCC TAAGAATGAG TTATCAGCTA	3660
GCGAGTTGGC TGCTGCAGAA GCCTTCCTAT CTGGTCGAGG AAATCTGTCA AATTCAAGAA	3720
CCTATCGCCG ACAAATAGC GATAACACTT CAAGAACAAA CTGGGTACCT TCTGTAAGCA	3780
ATCCAGGAAC TACAAATACT AACACAAGCA ACAACAGCAA CACTAACAGT CAAGCAAGTC	3840
AAAGTAATGA CATTGATAGT CTCTTGAAAC AGCTCTACAA ACTGCCTTTG AGTCAACGAC	3900

730					
ATGTAGAATC	TGATGGCCTT	GTCTTTGATC	CAGCACAAAT	CACAAGTCGA	ACAGCTAGAG
3960					
GTGTTCAGT	GCCACACGGA	GATCATTACC	ACTTCATCCC	TTACTCTCAA	ATGTCTGAAT
4020					
TGGAAGAACG	AATCGCTCGT	ATTATTCCCC	TTCGTTATCG	TTCAAACCAT	TGGGTACCAG
4080					
ATTCAAGGCC	AGAACAACCA	AGTCCACAAC	CGACTCCGGA	ACCTAGTCCA	GGCCCGCAAC
4140					
CTGCACCAAA	TCTTAAATA	GACTCAAATT	CTTCTTTGGT	TAGTCAGCTG	GTACGAAAAG
4200					
TTGGGGAAGG	ATATGTATTC	GAAGAAAAGG	GCATCTCTCG	TTATGTCTTT	GCGAAAGATT
4260					
TACCATCTGA	AACGTGTTAA	AATCTTGAAA	GCAAGTTATC	AAAACAAGAG	AGTGTTTCAC
4320					
ACACTTTAAC	TGCTAAAAA	GAAATGTTG	CTCCTCGTGA	CCAAGAATTT	TATGATAAAG
4380					
CATATAATCT	GTTAACTGAG	GCTCATAAAG	CCTTGTTTGA	AAATAAGGGT	CGTAATCTG
4440					
ATTTCCAAGC	CTTAGACAAA	TTATTAGAAC	GCTTGAATGA	TGAATCGACT	AATAAAGAAA
4500					
AATTGGTAGA	TGATTTATTG	GCATTCTTAG	CACCAATTAC	CCATCCAGAG	CGACTTGGCA
4560					
AACCAAAATC	TCAAATTGAG	TATACTGAAG	ACGAAGTTCG	TATTGCTCAA	TTAGCTGATA
4620					
AGTATACAAC	GTCAGATGGT	TACATTTTTC	ATGAACATGA	TATAATCAGT	GATGAAGGAG
4680					
ATGCATATGT	AACGCCTCAT	ATGGGCCATA	GTCACTGGAT	TGGAAAAGAT	AGCCTTTCTG
4740					
ATAAGGAAAA	AGTTGCAGCT	CAAGCCTATA	CTAAAGAAAA	AGGTATCCTA	CCTCCATCTC
4800					
CAGACGCAGA	TGTTAAAGCA	AATCCAACCTG	GAGATAGTGC	AGCAGCTATT	TACAATCGTG
4860					
TGAAAGGGGA	AAAACGAATT	CCACTCGTTC	GACTTCCATA	TATGGTTGAG	CATACAGTTG
4920					
AGGTTAAAAA	CGGTAATTTG	ATTATTCCTC	ATAAGGATCA	TTACCATAAT	ATTAAATTTG
4980					
CTTGGTTTGA	TGATCACACA	TACAAAGCTC	CAAATGGCTA	TACCTTGGA	GATTTGTTTG
5040					
CGACGATTAA	GTACTACGTA	GAACACCCTG	ACGAACGTCC	ACATTCTAAT	GATGGATGGG
5100					
GCAATGCCAG	TGAGCATGTG	TTAGGCAAGA	AAGACCACAG	TGAAGATCCA	AATAAGAACT
5160					
TCAAAGCGGA	TGAAGAGCCA	GTAAGAGAAA	CACCTGCTGA	GCCAGAAGTC	CCTCAAGTAG
5220					
AGACTGAAAA	AGTAGAAGCC	CAACTCAAAG	AAGCAGAAGT	TTTGCTTGCG	AAAGTAACGG
5280					
ATTCTAGTCT	GAAAGCCAAT	GCAACAGAAA	CTCTAGCTGG	TTTACGAAAT	AATTTGACTC
5340					
TTCAAATTAT	GGATAACAAT	AGTATCATGG	CAGAAGCAGA	AAAATTACTT	GCGTTGTTAA
5400					
AAGGAAGTAA	TCCTTCATCT	GTAAGTAAGG	AAAAAATAAA	CTAATGAAAA	ATGAAAGTCT
5460					
CGATAAAGAG	GCTTTCATTT	TTATTATGTA	TATATGTAAA	ATTCTTGACA	AGCAATATTA
5520					
AAAAGAGTAA	ACTATTAACT	AGTTAATTAA	CCGTTTATT	ACTTTATAGT	GAATCRAATA
5580					
TACTTAAGAA	AAGAGGAAAG	AATGAAAATT	AATAAAAAAT	ATCTAGCAGG	TTCAGTGGCA
5640					
GTCTTGCCC	TAAGTGTG	TTCTATGAA	CTTGGTCGTC	ACCAAGCTGG	TCAGGTTAAG
5700					

731

AAAGAGTCTA ATCGAGTTKC TTATATAGAT GGTGATCAGG CTGGTCAAAA GGCAGAAAAC	5760
TTGACACCAG ATGAAGTCAG TAAGAGGGAG GGGATCAACG CCGAACAAAT CGTCATCAAG	5820
ATTACGGATC AAGGTTATGT GACCTCTCAT GGAGACCATT ATCATTACTA TAATGGCAAG	5880
GTCCCTTATG ATGCCATCAT CAGTGAAGAG CTCCTCATGA AAGATCCGAA TTATCAGTTG	5940
AAGGATTGAG ACATGTGCAA TGAAATCAAG GGTGGTTATG TTATCAAGGT AGATGGAAAA	6000
TACTATGTTT ACCTTAAGGA TGCAGCTCAT GCGGATAATA TTCGGACAAA AGAAGAGATT	6060
AAACGTCAGA AGCAGGAACA CAGTCATAAT CACGGGGGTG GTTCTAACGA TCAAGCAGTA	6120
GTTGCAGCCA GAGCCCAAGG ACGCTATACA ACGGATGATG GTTATATCTT CAATGCATCT	6180
GATATCATTG AGGACACGGG TGATGCTTAT ATCGTTCCTC ACGGCGACCA TTACCATTAC	6240
ATTCTTAAGA ATGAGTTATC AGCTAGCGAG TTAGCTGCTG CAGAAGCCTA TTGGAATGGG	6300
AAGCAGGGAT CTCGTCCTTC TTCAAGTTCT AGTTATAATG CAAATCCAGC TCAACCAAGA	6360
TTGTCAGAGA ACCACAATCT GACTGTCACT CCAACTTATC ATCAAAATCA AGGGGAAAAC	6420
ATTTCAAGCC TTTTACGTGA ATTGTATGCT AAACCTTAT CAGAACGCCA TGTGGAATCT	6480
GATGGCCTTA TTTTCGACCC AGCGCAAATC ACAAGTCGAA CCGCCAGAGG TGTAGCTGTC	6540
CCTCATGGTA ACCATTACCA CTTTATCCCT TATGAACAAA TGTCTGAATT GGAAAAACGA	6600
ATTGCTCGTA TTATTCCCCT TCGTTATCGT TCAAACCATT GGGTACCAGA TTCAAGACCA	6660
GAACAACCAA GTCCACAATC GACTCCGGAA CCTAGTCCAA GTCCGCAACC TGCACCAAT	6720
CCTCAACCAG CTCCAAGCAA TCCAATTGAT GAGAAATTGG TCAAAGAAGC TGTTCGAAAA	6780
GTAGCGGATG GTTATGTCTT TGAGGAGAAT GGAGTTTCTC GTTATATCCC AGCCAAGGAT	6840
CTTTCAGCAG AAACAGCAGC AGGCATTGAT AGCAAACCTGG CCAAGCAGGA AAGTTTATCT	6900
CATAAGCTAG GAGCTAAGAA AACTGACCTC CCATCTAGTG ATCGAGAATT TTACAATAAG	6960
GCTTATGACT TACTAGCAAG AATTACACCA GATTTACTTG ATAATAAAGG TCGACAAGTT	7020
GATTTTGAGG CTTTGGATAA CCTGTTGGAA CGACTCAAGG ATGTCyCAAG TGATAAAGTC	7080
AAGTTAGTGG ATGATATTCT TGCCTTCTTA GCTCCGATTC GTCATCCAGA ACGTTTACGA	7140
AAACCAAATG CGCAAATTAC CTACACTGAT GATGAGATTC AAGTAGCCAA GTTGGCAGGC	7200
AAGTACACAA CAGAAGACGG TTATATCTTT GATCCTCGTG ATATAACCAG TGATGAGGGG	7260
GATGCCTATG TAACTCCACA TATGACCCAT AGCCACTGGA TTAAAAAAGA TAGTTTGTCT	7320
GAAGCTGAGA GAGCGGCAGC CCAGGCTTAT GCTAAAGAGA AAGGTTTGAC CCCTCCTTCG	7380
ACAGACCATC AGGATTGAGG AAATACTGAG GCAAAAGGAG CAGAAGCTAT CTACAACCGC	7440

732

GTGAAAGCAG CTAAGAAGGT GCCACTTGAT CGTATGCCTT ACAATCTTCA ATATACTGTA	7500
GAAGTCAAAA ACGGTAGTTT AATCATACCT CATTATGACC ATTACCATAA CATCAAATTT	7560
GAGTGGTTTG ACGAAGGCCT TTATGAGGCA CCTAAGGGGT ATACTCTTGA GGATCTTTTG	7620
GCGACTGTCA AGTACTATGT CGAACATCCA AACGAACGTC CGCATTTCAGA TAATGGTTTT	7680
GGTAACGCTA GCGACCATGT TCGTAAAAAT AAGGTAGACC AAGACAGTAA ACCTGATGAA	7740
GATAAGGAAC ATGATGAAGT AAGTGAGCCA ACTCACCTTG AATCTGATGA AAAAGAGAAT	7800
CACGCTGGTT TAAATCCTTC AGCAGATAAT CTTTATAAAC CAAGCACTGA TACGGAAGAG	7860
ACAGAGGAAG AAGCTGAAGA TACCACAGAT GAGGCTGAAA TTCCTCAAGT AGAGAATTCT	7920
GTTATTAACG CTAAGATAGC AGATGCGGAG GCCTTGCTAG AAAAAGTAAC AGATCCTAGT	7980
ATTAGACAAA ATGCTATGGA GACATTGACT GGTCTAAAAA GTAGTCTTCT TCTCGGAACG	8040
AAAGATAATA ACACTATTTC AGCAGAAGTA GATAGTCTCT TGGCTTTGTT AAAAGAAAGT	8100
CAACCGGCTC CTATACAGTA GTAAAATGAA TGGAGCATAT TTTATGGAGA AGTAACCTTT	8160
CGTGTACTT CTCTTTTTTA GAAAAACGTA ACAGA	8195

(2) INFORMATION FOR SEQ ID NO: 95:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2004 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 95:

TTTACTAAAA GAAAAAAGA ACTGATTTCT CAGTCCTTCA TTAATCTTAT TCCACACTAA	60
ATAGGTATGG GTAAACAGGT TGTGACCTT GGTGAATCTC GACTTCAACG TCTTCGAATT	120
CTTCTACGAT TTCTTGAGCG ATTTCAATGG CAAGTTCTTC GCTTCCGTCT TCACCTACAT	180
AGAAGGTTAC GATTTCACTG TCTTCATCCA ACATATGTTT CAAGGTTTCA GTCAATGTTT	240
GGTGCATATC AGGGTTTGAC ACAAGAATTT TTCCATCCAC CATACCTAAA TTATCGTTTT	300
CATGGATTTT TAAGCCATCG ATCGTTGTAT CACGCACGGC TGTGTGACG CTTCGGCTAA	360
CGACATCGCT AAGAGCAGCT GTCATACGCT CTTGGTTTTC TTCAATGGAC TTGCTTGAT	420
CAAAGGCAAG AAGACTTGTC ATACCTTGAG GAAGAGTGCG AGCCTCTACC ACTACCGCTG	480
GTTGCTCCAA AACTTCTGCC GCAGATTGAG CTGCCATGAA GATGTTCTTG TTGTTTGCCA	540
AGAAGATGAT GTTACGGGCA TTAACCTGTT CAACAGCCTT GATAAAGTCT TCTGTTGAAG	600
GGTTCATGGT TTGACCGCCT TCGATAACAT AATCCACGCC TTGAGAACAG AAGATATCTG	660

733

CTAGACCTTT ACCAGCCACC ACAGCAATCA AAGCATACTC TTTTCTTCA GCCGACTTGA	720
TAACTTGAGT AGCTTCTTTC TCAACCTGTG CTTCTGTGTG GTTACGCATA TTGTCAACTT	780
TTACCTTGAC CAAGCTACCA TATTTGAGAC CTTCTGTCAT AACAAATCCT GGATCTTCTG	840
TATGAACATG GACTTTGACA ATTTTCATCAT CGTTAACAAC AAGGAGAGAA TCTCCAAGCT	900
CATCCAAGTA GTTACGGAAT TCATCGTAGT CAAAATCTTT AGCATAGGTT GGACCTTGCT	960
TAAGAGCTAC CATGATTTC A GTACAGTAAC CAAACGTGAT GTCCTCAGTC GCTACGTGAC	1020
CAGCTACAGA CTTATGATGC TCTACATTGA TCATCTCACT CATGTTGGCA GGAGTCGCTA	1080
CAAAGTCCTC AGATGCAATA TATTCCGCAG TAAGGGCTGA AAGGAAACCT TCGTAGATGA	1140
AGACCAATCC TTGACCACCT GAGTCCACAA CGCCAACCTC TTTCAATACT GGAAGCATGT	1200
CTGGTGTTTT AGCTAGAGCT GTTTTAGCAC CTTCCAAGGC TCGCGCATG ACTTCAACAG	1260
CGTCATCTGT TTGCTCAGCT TTTTCTTAG CACCGATAGC AGCTCCACGA GAAACTGTTA	1320
AAATCGTTC TTCAACAGGT TTCATCACTG CCTTATAGGC AACTTCCACA CCTGATTGGA	1380
AGGCCAGAGC CAAGTCTTGA CCTGTAACT CGTCTTTATC CTTGATAGCT TGGGAAAATC	1440
CACGAAAAG CTGAGACGTA ATCACTCCTG AGTCCCACG CGCACCACATC AAAAGCCCTT	1500
TGGCAAGAAT GCTCGCTACT TCTCCAACCTG TAGAAGCTGG CTTGTCTGCA ACTTCTTAG	1560
CACCATTTC AATGGTCATT CCCATATTG TCCCAGTATC TCCATCTGGA ACTGGAAAGA	1620
CGTTTAATGA ATTGACATAT TCAGCTTGCT TATTCAAGCG AGTTGATGCA GCCTGCACCA	1680
TTTCTTGAAA TAAGCTAGTA GTAATTTTGT ACACGGTTAT TCTCCTACAA CTTTGATATT	1740
TTGAATGTAG ACATTTACAG TCTGAGCAGT AATTCCAAGC TGGTTTCCA AGCTAAAGGC	1800
AACACGCTCT TGAATGTTTT TTGACACTTC ACTAATCTTT GTTCCGTAGC TTAACACGGT	1860
ATATACATCA ACTGCAATAC TGCCATCTTC GGCTGCCTTT ACGACGACAC CTTTAGAATA	1920
ATTTCTCTTA CCTAGCAGGG CTTGGAAATT ATCTTTGAGG GCATTTTAC TAGCCATACC	1980
GACCACACCA GAAATCTCAG TTGC	2004

(2) INFORMATION FOR SEQ ID NO: 96:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11915 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 96:

734

CCGGGTGGG CTGTTCCGCC ATTAAAGCGG CACCACAGCT GGGTTCAGAA CGTCGTGAGA	60
CAGTTCGGTC CCTATCCGTC GCGGGCGTAG GAAATTTGAG AGGATCTGCT CCTAGTACGA	120
GAGGACCAGA GTGGACTTAC CGCTGGTGTA CCAGTTGTCT TGCCAAAGGC ATCGCTGGGT	180
AGCTATGTAG GGAAGGGATA AACGCTGAAA GCATCTAAGT GTGAAACCCA CCTCAAGATG	240
AGATTTCCCA TGATTATATA TCAGTAAGAG CCCTGAGAGA TGATCAGGTA GATAGGTTAG	300
AAGTGGAGT GTGGCGACAC ATGTAGCGGA CTAATACTAA TAGCTCGAGG ACTTATCCAA	360
AGTAACTGAG AATATGAAAG CGAACGGTTT TCTTAAATTG AATAGATATT CAATTTTGAG	420
TAGGTATTAC TCAGAGTTAA GTGACGATAG CCTAGGAGAT ACACCTGTAC CCATGCCGAA	480
CACAGAAGTT AAGCCCTAGA ACGCCGGAAG TAGTTGGGGG TTGCCCCCTG TGAGATAGGG	540
AAGTCGCTTA GCTCTAGGGA GTTTAGCTCA GCTGGGAGAG CATCTGCCTT ACAAGCAGAG	600
GGTCAGCGGT TCGATCCCGT TAACTCCCAT TTTAGCGGGT GTAGTTTAGT GGTAAACTA	660
CAGCCTTCCA AGCTGTGTC GCGAGTTCGA TTCTCGTCAC CCGCTTTGAA CTTTGTCTT	720
TGTACCAAGT TTTGACTTG GCGCGTAGC TCAGGTGGTT AGAGCGCACG CCTGATAAGC	780
GTGAGGTCGG TGGTTCGAGT CCACTCGTGC CCATAGTGTT TAGTCCATTA CTAGGGGATT	840
GGAATATTAT CTGTCTACTA AGAGGACACG GGCTGTTC CCATATAACT ATTTTGAGG	900
ATTACCCAAG TCCGGCTGAA GGAACGGTC TTGAAAACCG TCAGGCGTGT AAAAGCGTGC	960
GTGGGTTCGA ATCCCACATC CTCCTTTTAT ATTAACGCGG GATGGAGCAG CTCGGTAGCT	1020
CGTCGGGCTC ATAACCCGAA GGTCTAGGT TCAAATCCTG CTCCTGCAAT AAGGCTCGGT	1080
AGCTCAGTTG GTAGAGCAAT GGATTGAAGC TCCATGTGTC GCGGTTCTGA TTCCGTCTCG	1140
CGCCATTTAT ATATTTTGA AGGTAGCGA AGAGGCTAAA CGCGGCGGAC TGTAAATCCG	1200
CTCCTTCGGG TTCGGGGT CGAATCCCTC CCCTTCCATT TTACGGGCAT AGTTTAAAGG	1260
TAGAACTAAG GTCTCCAAAA CCTTCAGTGT GGGTTCAATT CCTACTGCCC GTGTTAATAG	1320
AATATGGCG GGTGTGGTGA AGTGGTTAAC ACACCAGATT GTGGCTCTGC CATGCGTGGG	1380
TTCGATCCCC ATCACTCGCC TATTTTATAT TGGGGTATAG CCAAGCGTA AGGCAAGGGA	1440
CTTTGACTCC CTCATGCGTT GGTTCGAATC CAGTACCCC AGTTACTATT TGCCGGCGTG	1500
GCGGAATTGG CAGACGCGT GGAATCAAAA TCCAGTGTC GCAAGGACGT GCCGGTTCGA	1560
CCCCGGCCGC CGGTATAGTA TAGTGTTAGG AACGTTGTTA TTCTTCGTTT CTTTTTTATA	1620
TTATTTTGG TATAATTATA GTTATTCAAA TTTTATTTAG ATTAAGAAAG TGTAGGGGAG	1680
TATGCTCTGT TCTATCGATT TATTAACA TCGGTATTTG AAAAATATTA AAGAAAATCC	1740
TGAATTGTTT GTCGGAATTG AGTTGGAGTA TCCTGTTGCA AGTTTAGAAG GGGATGCTAC	1800

735

AGATGTTGAA GTTATGAAGG ATCTATTTC A TTATTTAGTT TCTACTTTGG ATCTCACCGT	1860
AGCAAAGGTA GATGATTTTG GCAATCTGAT CCACTTAGTA GATCCGATAA GTCAGGATGC	1920
TATTTTATTT GAAGTTTCCT ATACAACGAT TGAGTTTGCA TTTGGTAAGG CTGAAACGAT	1980
TCAAGAGGTC GAAAATCGTT TCAATAATTA TATGAATGTA ATTCAGAGAA AGTTAGCTGA	2040
ATCAAATCAT GCTATTGTTG GCTGTGGTAT CCATCCCAAC TGGGATAAAA ATGAGAATTG	2100
TCCAGTGGCT TATCCACGCT ATCAGATGTT GATGGATTAT TTGAATTTGA GTAGAAATAT	2160
TATTAATCA GATTACATC ATTTCCCTGA ATATGGTACT TTTATCTGTG GGAGCCAGGT	2220
TCAGCTGGAT ATTTCAAAA CCAACTACTT ACGGGTGATT AATGCTTTTA CTCAAATTGA	2280
AGCGGCTAAG GCTTATTAT TTGCAAACTC TGAATTTTCG GGTGCGGATT GGGATACGAA	2340
AATTTCAAGG GATATTTTCT GGAAGAATC TATGCATGGT ATCTATCCAG AGAATGTTGG	2400
GGTCAATGCT AGACTCCTTA ATGATGAAAC TGATTTTTT GACTATCTAA ATCATTCTGC	2460
GATTTTACT GCGGAACGTG ATGGGCAGAC CTATTATTTT TATCCTATTC AGGCTGGGGA	2520
CTATTTGGCT ACGTCCGAAA TCCAAGCATT TGCTCTGAAT GGGGATGAGG TTATTATTTA	2580
CCCCAAGAG AAGGATTTTG AAATCATCG TAGTTACCAG TACCAAGATT TAACGACTCG	2640
AGGAACAGTT GAGTTTCGTA GTGTGTGTAC ACAGCCACTT GATAGGACTT TTGCTTCTGC	2700
AGCTTTTCAC TTGGGATTAT TGTTAATTT AGACAAGTTA GAAGCTTACT TAGAAACAGC	2760
ACCTTTCTTT AAAGTATTTG GTTATGATTA CAAGTCTTTA AGGAGACAAT TTTCTAAGAA	2820
AAATCTTACA GATGAGGAAG AAATACGAT TATTGAATTT TCCAAAGACT TACTCCTACT	2880
AGCTGAGGAG GGACTAGTGG TGAGAAATAA GGAAGAAATG ACCTATTTAC AGCCTTTGAG	2940
AGAAGAATTG AGCCTATAAT TTCTCTTATA AAGGGAGAAT TTTCTGAAAA ATCATGATAT	3000
AATGGACGAG ACTATAGATA AAGGATAGAG AGTAATGACA TTAGTTTATC AATCAACGCG	3060
TGATGCCAAC AATACAGTAA CTGCCAGCCA AGCAATTTTG CAAGGTTTGG CGACGGACGG	3120
CGGTTTGT TT ACACCGGATA CTTATCCAAA GGTAGATTTG AACTTTGACA AATTGAAAGA	3180
TGCTTCTTAC CAGGAAGTTG CTAAGCTAGT TTTGTCAGCA TTTTATAGATG ACTTTACAGT	3240
TGAGGAGTTG GACTACTGTA TCAACAATGC CTACGATAGC AAATTTGATA CTCCAGCTAT	3300
TGCACCATTA GTGAAATTAG ATGGGCAATA CAATTTGGAA CTTTCCATG GTTCAACGAT	3360
TGCCTTTAAG GATATGGCCT TGTCTATTTT GCCATACTTT ATGACGACTG CTGCTAAGAA	3420
ACATGGTTTG GAGAACAAAG TTGTTATCTT GACAGCGACA TCTGGTGACA CGGGGAAAGC	3480
TGCTATGGCG GGGTTTGC GA ATGTGCCTGG TACTGAGATT ATCGTCTTTT ATCCAAAGGA	3540

736

TGGTGTCTCAGC AAGATTCAAG AGTTACAAAT GACCACTCAG ACTGGCGACA ATACTCATGT	3600
TATTGCTATT GATGGTAACT TTGACGATGC GCAAACAAAT GTGAAGCACA TGTTTAACGA	3660
CGTGGCTCTT CGTGAAAAAT TGA CTACCA CAAGTTGCAA TTTTCATCAG CTA ACTCTAT	3720
GAACATTGGT CGTCTGGTGC CACAAATTGT TTATTATGTT TATGCTTACG CTCAATTGGT	3780
TAAGACTGGT GAAATTGTAG CTGGTGAAAA GGTTAACTTC ACAGTACCAA CAGGAAACTT	3840
TGGAAATATC TTGGCTGCCT TTATGCCAA ACAAATTGGT TTGCCAGTTG GTAAATTAAT	3900
CTGTGCTTCA AATGACAACA ATGTTTTGAC AGACTTCTTT AAAACACGTG TCTATGACAA	3960
AAAACGTGAG TTAAAGGTAA CAACCAGCCC ATCTATGGAT ATCTTGGTAT CTTCAAACTT	4020
GGAGCGCTTG ATTTTCCATC TTTTGGGAAA TAATGCTGAA AAGACAAC TG AACTTATGAA	4080
TGCCCTGAAC ACGCAAGGAC AATATAAGTT GACAGACTTT GATGCAGAGA TTTTGGACCT	4140
CTTTGCAGCT GAATATGCGA CTGAGGAAGA AACGGCAGCA GAGATCAAGC GTGTTTGTA	4200
GTTAGATTCT TATATCGAGG ACCCTCATA AGCTGTTGCT TCAGCAGTTT ATAAAAATA	4260
CCAATCGGCC ACTGGAGATG TAACTAAGAC AGTGATTGCT TCAACAGCTA GTCCATACAA	4320
GTTCCAGTA GTTGCAGTAG AAGCTGTAAC TGGAAAAGCA GGTTTAACAG ACTTTGAAGC	4380
CTTGCTCAA TTACATGAAA TCTCAGGCGT TGCACTGCCA CCAGCAGTTG ATGGGCTTGA	4440
AATAGCTCCA ATTCGTCACA AGACAACAGT GGCAGCTGCT GACATGCAAG CAGCGGTTGA	4500
GGCTTATTTA GGA CTTTAAG ACAGAGGGAG CAACTCGGT TGGGAAACCA ACTGAGTTTC	4560
TTTTCATCAG GAGGAGAGAT TGTTTAAGAA AAATAAAGAC ATTCTTAATA TTGCATGCC	4620
AGCTATGGGT GAAAAC TTTT TGCAGATGCT AATGGGAATG GTGGACAGTT ATTTGGTTGC	4680
TCATTTAGGA TTGATAGCTA TTTCAGGGGT TTCAGTAGCT GGTAATATTA TCACCATTTA	4740
TCAGGCGATT TTCATCGCTC TGGGAGCTGC TATTTCCAGT GTTATTTCAA AAAGCATAGG	4800
GCAGAAAGAC CAGTCGAAGT TGGCCTATCA TGTGACTGAG GCGTTGAAGA TTACCTTACT	4860
ATTAAGTTTC CTTT TAGGAT TTTTGTCCAT CTCGCTGGG AAAGAGATGA TAGGACTTTT	4920
GGGGACGGAG AGGGATGTAG CTGAGAGTGG TGGACTGTAT CTATCTTTGG TAGGCGGATC	4980
GATTGTCTC TTAGGTTTAA TGA CTAGTCT AGGAGCCTTG ATTCGTGCAA CGCATAATCC	5040
ACGCTCGCCT CTCTATGTTA GTTTTATC CAATGCCTTG AATATTCTTT TTTCAAGTCT	5100
AGCTATTTTT GTTCTGGATA TGGGGATAGC TGGTGTGCT TGGGGGACAA TTGTGTCTCG	5160
TTTGGTTGGT CTTGTGATTT TGTGGTCACA ATTAAACTG CCTTATGGGA AGCCAACTTT	5220
TGGTTTAGAT AAGGAACTGT TGACCTTGGC TTTACCAGCA GCTGGAGAGC GACTTATGAT	5280
GAGGGCTGGA GATGTAGTGA TCATTGCCTT GGTGTTTCT TTTGGGACGG AGGCAGTTGC	5340

TGGGAATGCA ATCGGAGAAG TCTTGACCCA GTTTAACTAT ATGCCTGCCT TTGGCGTCGC	5400
TACGGCAACG GTCATGCTGT TGGCCCGAGC AGTTGGAGAG GATGATTGGA AAAGAGTTGC	5460
TAGTTTGAGT AAACAAACCT TTTGGCTTTC TCTGTTCCCTC ATGTTGCCCC TGTCCTTTAG	5520
TATATATGTC TTGGGTGTAC CATTAACCTCA TCTCTATACG ACTGATTCTC TAGCGGTGGA	5580
GGCTAGTGTT CTAGTGACAC TGTTTTCACT ACTTGGGACC CCTATGACGA CAGGAACAGT	5640
CATCTATACG GCAGTCTGGC AGGGATTAGG AAATGCACGC CTCCCTTTTT ATGCGACAAG	5700
TATAGGAATG TGGTGTATCC GCATTGGGAC AGGATATCTG ATGGGGATTG TGCTTGGTTG	5760
GGGCTTGCCT GGTATTGGG CAGGGTCTCT CTTGGATAAT GGTTTTCGCT GGTATTCTCT	5820
ACGCTATCGT TACCAGCGCT ATATGAGCTT GAAAGGATAG GAAATGCAAA AAACAGCTTT	5880
TATTTGGGAT TTAGACGGGA CTTTATTGGA CTCTTACGAA GCGATTTTAT CAGGGATTGA	5940
GGAGACTTTT GCTCAGTTTT CTATTCCTTA TGATAAGGAG AAGGTGAGAG AGTTTATCTT	6000
CAAGTATTCG GTGCAAGATT TGCTTGTGCG GGTGGCAGAA GATAGAAATC TGGATGTTGA	6060
GGTGCTAAAT CAGGTGCGTG CCCAGAGTCT GGCTGAGAAG AATGCTCAGG TAGTTTGTAT	6120
GCCAGGTGCG CGTGAGGTGC TAGCTTGGGC AGACGAATCA GGAATTCAGC AGTTTATATA	6180
TACTCATAAG GGGAAACAACG CTTTACCAT TCTCAAGGAC TTGGGGGTGG AATCCTATTT	6240
TACAGAGATT TTAACCAGTC AGAGTGGCTT TGTGCGGAAG CCAAGTCCAG AAGCGGCTAC	6300
CTATCTGCTA GATAAGTATC AGTTGAATTC TGATAATACT TATTATATAG GGGATCGGAC	6360
TCTGGATGTG GAATTTGCCC AGAATAGTGG GATTCAAAGC ATCAACTTTT TAGAGTCTAC	6420
TTATGAAGGG AATCACAGGA TTCAAGCGTT AGCAGATATT TCCCGTATTT TTGAGACTAA	6480
GTGATAAAAA GATTGTGTCA GTTTGTGAC AGAGACCTAA CAAACTATTT CAAGTAACCT	6540
AGTTTGTAC AAGGAATAGA CAGTCTGTT AAATAGGCCC GAGAGGGCTT TTTTCTACA	6600
TTTTTGTGT TATGATAGAC AGTACTCAT TTGAAAGGAA TTTGAAAGAA TGAAGAAAAG	6660
AATGTTATTA GCGTCAACAG TAGCCTGTGC ATTTGCCCA GTATTGGCAA CTCAAGCAGA	6720
AGAAGTTCTT TGGACTGCAC GTAGTGTGA GCAAATCCAA AACGATTGA CTAACCGGA	6780
CAACAAAACA AGTTATACCG TACAGTATGG TGATACTTTG AGCACCATTG CAGAAGCCTT	6840
GGGTGTAGAT GTCACAGTGC TTGCGAATCT GAACAAAATC ACTAATATGG ACTTGATTTT	6900
CCCAGAACT GTTTTGACAA CGACTGTCAA TGAAGCAGAA GAAGTAACAG AAGTTGAAAT	6960
CCAAACACCT CAAGCAGACT CTAGTGAAGA AGTGACAACT GCGACAGCAG ATTTGACCAC	7020
TAATCAAGTG ACCGTTGATG ATCAAATGT TCAGGTGCA GACCTTCTC AACCAATTGC	7080

738

AGAAGTTACA AAGACAGTGA TTGCTTCTGA AGAAGTGGCA CCATCTACGG GCACCTTCTGT	7140
CCCAGAGGAG CAAACGACCG AAACAACCTCG CCCAGTTGAA GAAGCAACTC CTCAGGAAAC	7200
GACTCCAGCT GAGAAGCAGG AAACACAAGC AAGCCCTCAA GCTGCATCAG CAGTGAAGT	7260
AACTACAACA AGTTCAGAAG CAAAAGAAGT AGCATCATCA AATGGAGCTA CAGCAGCAGT	7320
TTCTACTTAT CAACCAGAAG AGACGAAAAT AATTTCAACA ACTTACGAGG CTCCAGCTGC	7380
GCCCGATTAT GCTGGACTTG CAGTAGCAAA ATCTGAAAAT GCAGGTCTTC AACCACAAAC	7440
AGCTGCCTTT AAAGAAGAAA TTGCTAACTT GTTTGGCATT ACATCCTTTA GTGGTTATCG	7500
TCCAGGAGAC AGTGGAGATC ACGGAAAAGG TTTGGCTATC GACTTTATGG TACCAGAACG	7560
TTCAGAATTA GGGGATAAGA TTGCGGAATA TGCTATTCAA AATATGGCCA GCCGTGGCAT	7620
TAGTTACATC ATCTGGAAAC AACGTTTCTA TGCTCCATTC GATAGCAAAT ATGGGCCAGC	7680
TAACACTTGG AACCCAATGC CAGACCGTGG TAGTGTGACA GAAAATCACT ATGATCACGT	7740
TCACGTTTCA ATGAATGGAT AAACCCGACT TGATAACATC ATTTTGACGA ATGAGATCTA	7800
GCTTTCGTGA TGGAAAGCGA TTCTCGTTCG TTTTTCCTTT GTCATACTCT TCGAAAATCT	7860
CTTCAAACCA CGTCAGTTT ATCTGAAACT TCAAAGCTGT GCTTTGAGCA ACCTGCGACT	7920
AGCTTCCTAG TTTGCTTTTT GATTTTCATT GAGTATCAAT TTGAATGGAA AATGGAAAGT	7980
TATCATCTTG TAATGAGTTA AGCAACATTC TTGCAATCTA TTTTACTTTA TATCACAATT	8040
AATTAGTCAA ATATTGATAA ATCAATAAAA AGAGAGGGGA AGAAATGCTA GAGATTCAAG	8100
ATTTACTGTA TCAACTCCGC TTGTCTGAGC AAGCGAGTAC GCAATTGTTT GAAAAAAGGC	8160
TTGGGATTAG TTTGACACGG TATCAGATTT TACTGTTTTT GCTGGAGCAT TCTCCTTGTA	8220
ACCAAATGGC GGTTCAGGAG CGTTTGAAAA TTGATCAGGC TGCTTTGACA CGGCATTTCA	8280
AAATTTTGA AACGGAAGGT TTGGTGGAGC GTCATCGTAA TCCTGAAAAT CAGCGGAAG	8340
TGTTGGTAGA GGCTGCGAAG TATGCCAAGG AGCAGTTAGT GGTGAATCCC CCTCTGCAAC	8400
ATATCAGGGT TAAGGAAGAG ATAGAAAGTA TCTTAACAGA GTTTGAGAGA ACAGAACTCA	8460
GCCGTTTATT AAATAAATTG GTTTTGGGTA TTGAAAATAT AGAAATTTAA GGAGAAATAG	8520
ATGTCAATTA TTTTAACAAC GATCGTTGCT TTGGAGCATT TTTACATTTT TTATTGGAA	8580
AGTATTGCCA CGCAATCAGA TGCGACTAGT CGTGTATTTA ATATGGAAAA GGAAGAATTG	8640
GCTCATCCGT CAGTAAGTTC ATTGTTCAAA AATCAAGGAA TTTATAAGGC TCTGCTAGGA	8700
GTCTTTCTCT TGTATGTCAT TTATTTCTCA CAGAATTTAG AAATTGTGAC TATTTTGTGC	8760
TTATTTGTGA TTGGTGCTGC GACTTACGGC TCTTTAACAG CGGATAAAAA AATTATTTTG	8820
AAACAAGGTG GATCAGCTAT TTTGGCCTTG ATTAGTATTT TACTCTTTAA ATACACTTGA	8880

739

AGGTCGATTC TAATCTCGCT AATCCTTTTT AATCCAGAAT AAGGGAAATA TGTATACTTT	8940
GTTTTTAAGA AAAAAGTCTC ATTGAATTGG TTTTGAGGAG TTAGAAATGA AAGTATTAGT	9000
GACAGGTTTT GAGCCCTTTG GAGGGGAAAA GGGCAATCCA GCTTTGGAGG CCATTAAAGG	9060
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CAAATCTGCT CAAGTATTGG AAGAAGAGAT GAATCGTTAT CAACCTGACT TTGTCCTTTG	9180
TATTGGGCAA GCTGGTGGAA GAACTAGTTT GACACCTGAA CGAGTGACCA TTAATCAAGA	9240
CGATGCATGC ATTTCTGATA ACGAAGATAA TCAACCGATT GACCGTCCCA TTCGCCCAGA	9300
TGGTGCTTCG GCCTACTTTA GTAGTTTGCC GATTAAAGCG ATGGTTCAAG CTATAAAAA	9360
AGAGGGCTTA CCGGCCTCTG TTTCCAATAC GGCAGGGACT TTTGTCTGCA GCCATTTGAT	9420
GTATCAGGCT CTCTATTTGG TAGAAAAGAA ATCTCCATAT GTTAAGGCAG GTTTTATGCA	9480
TATTCCTTAT ATGATGGAAC AGGTGGTGAA CAGACCGACT ACTCCAGCTA TGAGTTTAGT	9540
GGATATTCGG CGAGGGATAG AAGCAGCAAT CGGCCTATA ATAGAACATG GAGATCAGGA	9600
ACTCAAGTTG GTAGCGGAG AAACTCATTG ATAGAAAAAA GCTTGAGGGG AAAAACCTTC	9660
AAGCTTTTGG ACGTTTTCGG GCCAATACTG CTCGGTAAAA CATAATTTTA GTGCATTGGA	9720
TATAAGGTAG GAGTGAAAAA CTAGCAATGC CAAAGGTAAT CCAATTGAGG AAGTACCAAG	9780
GAAGAAGCTG TAAATCTAGG ACAAAGTGCT GGAACCTGTA GCCCTTCATA AAGGAACGCC	9840
TAGTTTTTAG GATTCGTCIT GGTGGGACCT GTCCTAGGTC TAGACTATAA CAGAGAAGAA	9900
ATTCCACCTG TGAATAGGCA TAATACTGTG GAATATAGAG GATATTTCTT ACAATGATCA	9960
AGATGAGACT TGCAAGAAAG TAGAGTCCAA AGACCATGAG GAAACGCTCG GTTCAACTG	10020
ATGAGAGATC TAGATTTGGA AACTCAGGAT GTAGGGTGAC GAATTTTTTG GCTAAAAAGC	10080
TACTATAAAA GAGGAGGTAA ATCCCAAGTA AATTAGGGAT ACTCCATAAA AAGAGATAGA	10140
AACGTTTGAG AAGTAGGGTC AAAAAGGTTT GAGAAAAGCG CTCCTCATCA AAGAGAGCTA	10200
GGCTGTTTTT TACAGATGGC TCCGTTTTAG AATCTTTCAT GAGTGTCAGT GTGCATAGA	10260
CGGAACCTGT CAAAAGAATA GTCCCGATAA AGGAGACTAG TAGAGGAAAG AGGTAGGTTT	10320
GAAGTATTTG GCCAAGTATG CTGAAAAATG GCTGTTCTAA AACAGTCCCG TGGATCCGAG	10380
ATAAGGGATT AAGAAAACCA GATAAGATGA CCAGCATACT GGAAGGATA TAGAGGAGAA	10440
AGAGACGGGG GGTGTCAGCC TGAAAATGTT TTGACTCCTG ACGAATTGTT TTAAATCAA	10500
TTTTTGATA GTTCATTCTC TTATTATACC ATAGTTCTTA TACATAGTTC GTGACAGTTC	10560
CTACTTTTTT TGATAAAATC ATACAGTGTG TCCTTGGGCA CACTGTATGA ACTGGGACTG	10620

740

TCTTTCCCAG CTTCGGAGGT AAAAAATGTC AGATTCACCA ATCAAATATC GTTTGATTAA	10680
GAAAGAAAA CACACAGGAG CTCGCTCGGG AGAAATCATC ACTCCCCACG GTACCTTTCC	10740
GACACCTATG TTTATGCCAG TTGGGACACA AGCCACTGTC AAAACTCAGT CACCTGAAGA	10800
ATTGAAGGAG ATGGGTTCGG GAATTATCCT ATCAAACACC TATCATCTCT GGCTTCGCCC	10860
TGGAGATGAA CTCATTGCAC GCGCTGGTGG TCTCCACAAG TTCATGAATT GGGACCAGCC	10920
TATCTTGACA GATAGTGGTG GTTTTCAGGT TTATTCTTTA GCAGATAGCC GTAATATCAC	10980
AGAAGAAGGA GTAACCTTTA AAAATCATCT AAATGGTTCT AAGATGTTCC TATCCCAGA	11040
AAAAGCCATC TCTATTGACA ATAATCTGGG TTCAGACATC ATGATGTCCT TTGATGAATG	11100
TCCTCAGTTT TATCAACCTT ATGACTACGT TAAGAAATCG ATCGAGCGTA CCAGCCGTTG	11160
GGCTGAGCGT GGTTTGAAGG CTCACCGTCG TCCACATGAC CAAGGTTTGT TTGGAATTGT	11220
GCAAGGTGCA GGATTGAAG ACCTTCGCCG CCAATCAGCT CATGATCTTG TCAGCATGGA	11280
TTTCTCAGGC TACTCTATCG GTGGTTTGGC AGTGGGAGAA ACCCATGAAG AGATGAATGC	11340
GGTCTTGAC TTTACAACCT AACTGCTGCC TGAAAAATAA CCTCGTTATC TGATGGGTGT	11400
GGGAGCGCCA GATAGCTTGA TCGATGGGGT CATTCGTGGG GTGGATATGT TTGACTGTGT	11460
CTTACCGACT CGAATTGCTC GTAACGGGAC TTGTATGACC AGTCAAGGAC GTTTGGTTGT	11520
GAAAAATGCC CAGTTTGCTG AGGACTTTAC GCCACTGGAT CCTGAGTGTG ATTGCTACAC	11580
ATGTAATAAC TATACACGCG CTTACCTTCG TCACCTGCTC AAGGCTGATG AAACCTTTGG	11640
TATCCGCTTG ACTAGCTACC ACAATCTTTA CTTCTTGCTT AACCTGATGA AGCAAGTGCG	11700
ACAAGCCATC ATGGATGACA ATCTCTTGGA ATTCCGTGAG TATTTTGTGG AAAAAATATG	11760
CTATAATAAG TCAGGACGTA ATTTCTAAAA TGGAATTGAT ATAAAAAAT CCTAAGTTTT	11820
CTCTTAGGAT TTTTCTTCTT TTTTGTATAG AATAAAGTGT ACAATGAAAG GAAGAATAAA	11880
CTCGTATGCG CATTAAATGG TTTTCCTCGA TTAGG	11915

(2) INFORMATION FOR SEQ ID NO: 97:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9069 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 97:

GAGAGGGCAA CAGTTCTATC GCTTCAAATT TTTCTTGGT TTGCAGATAT TCAAGAATCG	60
GGAGTTTTTC TATAGTATTC GGCAGATTTA TTACAGCCAA GCATCTCAAA AATACGGACA	120

741

GCATCCTCCA TCTTTTCTG GCCTTCCTTG ACTCTACCTT GCTTGCTATC AAGGAGACCT	180
TCTGCCCACA GATAACAAT TCGGAAATAG GTCTCATTTT CCTTGTAGAA ATGCTCTTCG	240
ATAACACGTT TAAATAATA GGCATTGGTA AATTCTTCAC ACTCAATACT AGCTAAAAAG	300
CCATTCAATA GTATAGTATG AAAAAGTTT CGATTGCCAG ACATTTCAT TAGAAAATCA	360
GATTACGTA CCATTTCTCG TACATATCTA GTAAAAAGAG AAACAGATAA AAATGGAGAA	420
CTGACTGAAA ATAAATTGAG TTCATAGATT CCCCAGATCT CGGTAGAAAA CAAATAATCA	480
TGAAGGACTT TTCCTTCCTC TGCTGTTAAG TCTACCCTTT CATCTATGCT CTTCATATAA	540
GACTTGATAA TAATGGCATT TAGAATATGT TTCTGTTTGT TGTGAGAAATG GGCATGCTTT	600
TATACTCCCT GCGATATAAG TCCTCAAGAG GTGCTATATT CTTTGGTTCC AAGACATCTG	660
TAATTTCTTT TCTCAACTCA GAATCTGTAT CATACTGGAA ACCTCTTGCC AGAAAGAGGA	720
TCCTCTCCAC ACTGGCAGAT ATATTTTCCA GAGCAATAG AAATTTTCC ACCGAAAGCT	780
CACTCTGACC TGTTCAAAA CGGGACAACA TAGACGGCGA AAATGTCTCT CCGGTGCTT	840
GTCTCAGTGA GATATTTCTT GACTCTCGTA ATTGTCTAAA GACTTTTCCA ATCTGCTCCA	900
TAGACTTCCC CTGATTCCTG TATTTTCTTC ATTTTATCAT ATTTTTCAGA AAATTCATCA	960
AAAACCTGCC AAATGTGAG AATTATGAGA AAATAGAGGA TATTTATCAC GTGGAGGGAC	1020
TGCTATGAGA GACGATATCA AAATCAATGA CCGTGCTTTG GCCTTGCAAG ACCAAATTAT	1080
CGAAAACTA GAGAAAGTTT TTGATACAGA TGTGGAATTG GATGTTTACA ATCTAGGTCT	1140
GATTTATGAA ATCAATCTGG ATGAAACGGG GCTCTGCAAG ATTGTATGTA CCTTCACCGA	1200
TACTGCCTGT GATTGCGCCG AAAGCCTGCC TATTGAAATC GTGGCAGGTC TGAAACAAAT	1260
CGAGGGTATC AAAGATATCA AGGTTGAAGT TACCTGGTCG CCTGCTTGA AAATCACACG	1320
AATCAGTCGC TATGGCCGTA TTGCCCTTGG ACTACCACCT CGTTAAGCAG ACCAATCACT	1380
TTTAAAGATG AAAATCAAAG GGCAACTAG AAAACTAGCC GCAGGTTGCT CAAAACACTG	1440
TTTTGAAGTT ATGGATAGAA CTGACGAAGT CAGCTCAAAA CACTGTTTTG AGGTTGTGGA	1500
TAGAACTGAC GAAGTCAGCT CAAAACACTG TTTTGAGGTT GTGGATAGAA CTGACGAAGT	1560
CAGCCCAAAA CACTGTTTTG AGGTTGTGGA TAGAACTGAC GAAGTCAGTA ACCATACCTA	1620
CGGCAAGGCG ACGTTGACGT GATTTGAAGA GATTTTCGAG TATGAGTTTA TTTTTCCT	1680
GACTTGTTCA TATTCAGAA GTCTGTCACG GCTCCGCGTG AAGCAGATGA TACGATGTGG	1740
GCATATTTAC CGAGGACACC ACGGCTGTAA AGTGGTGCCA AGGTTGTTTC TGCCTTGCGT	1800
TTTTCAAGTT CTCTTCGGA TACGGCCATA GAAATTTCTT TGGTATCTTG GTCAACCGTA	1860

742

ACGATATCGC CGGTACGGAG ATAGGCAATT GGTCCACCAT CCTGAGCTTC AGGAGCGATA	1920
TGTCCAACAA CCAGACCATA AGTACCACCA GAGAAACGTC CGTCCGTCAA GAGGGCCACC	1980
TTATCTCCCT GACCTTTACC AACAATCATT GAAGAAAGTG ATAGCATCTC AGGCATACCA	2040
GGACCACCTT TAGGTCCAAC AAAACGAACA ACGACTACAT CGCCATCAAC GATTTCATCT	2100
GTCAGAACGG CCTGAATCGC ATCTTCTTCT GAGTCAAAGA CCTTAGCTGG CCCAACGTGA	2160
CGACGCACTT TAACACCTGA TACCTTGGCA ACTGCACCGT CAGGAGCAAG GTTCCCGTTC	2220
AAGATGATAA GCGGACCATC CGCACGTTTT GGATTTTCAA GTGGCATGAT AACTTTTGG	2280
CCTGGAGTCA AGTCTGCAA GTCAGCCAAG TTTTCAGCTA CAGTCTTACC AGTACATGTG	2340
ATGCGATCTC CGTGAAGGAA ACCATTTGCC AACAAATACT TCATAACCGC AGGGACACCA	2400
CCGACTTCGT AGAGGTCTTG GAAGACATAC TGACCAGATG GTTTCAGTC GGCCAAGTGA	2460
GGCACACGTT CTGAATCGT ATTGAAGTCC TCAAGTGACA AGTCAACATT TCGGGCATGG	2520
GCAATGGCGA GCAAGTGAAG AGTGGCGTTT GTAGAACCAC CGAGAGCCAT CGTTACAGTG	2580
ATAGCATCTT CAAAGGCTTC ACGAGTCAAG ATATCTGATG GTTTGAGACC AAGTTCCAAC	2640
ATCTTAACAA CAGCACGTCC TGCTGCTTCG ATATCTTCTT TCTTATCAGC TGATTTCAGCT	2700
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ACCAAGTCGA TATCTTTACC ATCAAGATTT CCCGGTGCAA TAGTTCCACC ATAGGCGAAA	2940
ATAGCTGGGA TATCCATATT AGCAATAGCA ATCATAGATC CAGGCATGTT CTGTGCACAG	3000
CCACCGATAG CGACGAAGGC ATCCACGTTG TGACCACTCA TAGCCGCCTC GATGGAGTCC	3060
GCGATGATGT CACGAGATGT TAGAGAGAAA CGCATACCAG GCGTTCCCAT AGCGATCCCG	3120
TCCGCTACGG TAATGGTTCC AAAGTGTACA GGCCAAGCGC CTGCAGATTT GACACCTTCT	3180
TTAGCCAGTT TCCCGAAATC ATGCAAGTGA ATGTTACATG GTGTATTTTC CGCCCAAGTC	3240
GAAATCACTC CCACAATCGA TGTTTCAAAG TCCTTATCTG TCATACCAGT CGCACGAAGC	3300
ATAGCACGGT TAGGTGATTT AACCATGCTG TCATAAATGC TACTGCGGTG ACGTTTATCT	3360
AATTTCAGTCA TCTTATCCCT CCCATTTTCAG TTTTACTAT TATAGCACAA TTTTCGCATG	3420
AAGAACAGAA TAAAATTCTT GAATTTTCAG AAAATTCTAT ACACATGTGA AATATTTAAA	3480
ATTAAAAACA ACAAGCGGA TTAGTGCACT TTCTGATGAC CAGAATATGC TTTTAAATCC	3540
GCTTCTTTA AATAACGTAC TGTAAATTTT ACAGAAATTC TTTCAAATAA GTGTATTTAA	3600
CATCTATCTT GCATTATAAA TTTCTAGAAC CTCTCTTTT ATATTCGATT CACTCAAACC	3660

743

ATACTCATT	AGAAGATAAT	CCATTTTCCC	TACTTGACCG	AATCTTTCTT	GAACACCCAT	3720
CCGATGAATT	TTTGTATTTC	CATCATCAGA	GAATAATTCA	CATAAAGCAC	TGCCAATTCC	3780
ACCTATCTGA	TTGTGGTTTT	CTACAGTAAA	TATAGTTTTT	CCACTTAACA	TTGTTTTTAT	3840
CTGTCTGGT	ATCGGTTTGA	TTCTAAATAA	ATCTATCACA	CCTACTGAAT	AACCTAATTT	3900
AGACAGTTCA	TCTGCAACTC	GAATACTTGG	AGCAACCATT	ATGCCAGAAG	CAACGATTAC	3960
AAGATCTTCA	CCATGCCTTA	ACTCAATGTA	GCCTTTAGAA	AAATCTTCTC	CACCTTGATA	4020
CACAGGAACT	GGAGCTTTTC	TAATTGTTTCG	AATATATTTT	AGTCCTTTTA	AGTCTAATGT	4080
CTGGTTCAAT	ATTTACAGAA	ATTGGATATC	ATCAGTTGCT	TCGAAAATGA	TTGATTTAGG	4140
AATTAAACGT	AACAATCCAA	TTTCTTCAAA	TGGCATATGT	GTTCCACCAT	TCATCTCTGC	4200
CGTTACTCCT	GCATCTGATC	CAATCACAGT	GGCATCCAAT	TGTGCGTATC	CAAGAGAAAT	4260
AAATAATTGA	TCAATACTC	TTCGTGAAGC	AAAAGGACCA	AATGTATGAA	GATAAGGTCT	4320
AAACCCCTGA	ATAGACAAGC	CTGCTGCAAG	GCCGACCATT	TCTGCTTCCA	TAATCCCAAC	4380
ATTCACATAA	CGGTCTCCAA	AGTCCTTTTC	AAGATTATTA	GTAGCCATCG	AACTTGACAA	4440
ATCGGCTTCT	AAGACTACTA	TATCAGAATC	ACTTTGATTA	GCCTCTAAAA	GGAAGTCTCT	4500
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CACTTAGGTG	ATGAATTATT	TGACTGTTTT	AATTGGACAA	TCCCTTCATA	AATTTCTCTA	4740
ATATCTGAAC	CCTTGACCCT	AATGGATTCA	AATCCAAATG	CTGAAAATTT	TTCTACGAAA	4800
TCACCTGGAT	TACAAATATC	CTTTGTAAAA	CCATCTAATT	GTTTTTTGTT	ATCATCAACA	4860
AATACAATTA	AGTTGGATAA	CTGTTGATGA	GAAGCAAAC	GTATAGCCTC	CCAACATTGT	4920
CCCTCATTTA	ACTCACCATC	TCCAACAATA	GCGTAAGTAT	AAAAGGGACT	CTTCTTATT	4980
CTCTGACCAT	ATGCAAGTCC	AGTTGCAACA	CTAATTCCTT	GTCCTAAAGA	GCCCGTTGTC	5040
ATATCTATGC	CTGGCGTTAG	ATTTCTATCA	GGATGAGACG	GTAATTTGGT	TCCATTTGTA	5100
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GCTGGTCCTC	CGTGACCTTT	TGATAATATG	AAATAATCTC	TATCTCGTGC	TGCAAAATAT	5220
TCTGGAGTCA	TTGGCATTAT	TTCAACATAA	AGCACCGCTA	AAACTTCTAC	GATAGACAGA	5280
CTTCTCCGCT	AATGTCCGAA	TCCAAGATGA	TTCAATGTTT	TAAGAGTATT	TAATCGGATG	5340
TTAGTCGCAA	ATTTTCTTAA	CCCATCTTCT	CTATTTTAC	TAAAAATCAT	CCCTTATTCC	5400

744

TCCGTTGCAG	ATGGCTTTTT	AATAAAGGAT	ACTCCAAACA	TAACTGCTAG	AATAAGAACA	5460
AGACCAATCA	CAATGCCTGC	TTGTGAGCCA	AATTGATTTA	ACATTCCTAA	AATAATTCCT	5520
GATAGACCAA	AATCTGCATC	TGAGAAAGTT	GATCCTTGGA	AACCAAGTCC	TCCCAAAACT	5580
GGCATTAAAA	AGACTGGAAG	AAAAC TGATT	AAAATACCTT	GTAAAAATGC	TCCAATAGTG	5640
GCTCCACGAA	CACCACCAGA	TGCATTCCCA	ATGACACCTG	CAGTCGCTCC	ACAGAAGAAA	5700
TGAGGCACAA	CACCTGGTAA	GATAACAACC	GTTCTTGAAG	CAATCATAAT	TACCATACTT	5760
ACTAAACCAC	CAACAAAAC	AGAGATAAAT	CCAATTAGAA	CTGCATTGGG	TGCATAAGTA	5820
TAAACAATCG	GACAATCCAA	AGCAGGTTTT	GAATTAGGTA	CAAGACGCTC	TGAAATACCT	5880
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CCTGCTGCAA	ATTGACCTGC	TAATTGTAAA	GCATAAACTA	GACCACTTGT	ACCACTACTG	6000
ATTTCTTTTT	CTATATATTC	TGACCCTGCA	AAGATAGCTA	CAATAATGTA	AATAACTGCC	6060
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ATGTCTCTCG	TTGATTTTGA	TTTGTACCG	ATAAGGCTAC	CAGTAAAACC	ACTCAACCAA	6180
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TATTTTTGCA	CAAATGCTGG	GGAAATACTC	ATAATAATAC	CGAGTGCTAA	TCCTCCTAGT	6300
AAGATGAGAG	GCAAGCTAGT	AAAGCCAGCA	ACTGATAAAA	TGACCGCAAT	CATACATGCC	6360
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TGAAGAACTA	ATCCTAAGAT	TGCAATTAAA	GCTACTAAAA	TAGCTGGTGT	ACTAACAATA	6720
TCCAATATGA	ACTTCATCAT	GACGCTAGCC	TCCTATATAA	GTCTTTTTC	TTCACAAACT	6780
TTAGTAATTA	ATTCTCGTAG	TTCATCCATA	TCAATAATAC	TATTTAAGAT	ACGAACATCT	6840
CCAAGATGAC	TAGCTGAATC	AGCTAGATCA	CGACCAACAA	TCCAAATATC	AGCTGCATTT	6900
GGATCTGCTC	CACCTAAATC	ATAATGTTCA	ACTTCTACAT	CCGAAACATT	CAAATCACTC	6960
AATACAGATT	CAATATTCAT	CTGTACCATA	AAACTTGAAC	CTAATCCTGA	ACCACAAGCT	7020
GTACCAATTT	TTAACATTAT	CTAATCCTCC	TGTTTAATTA	TCATTTTAAT	GTCAATCATAG	7080
TTTTTTGATG	ATATTAAAGT	TTGAACATGA	TTTTTATCTC	TTAAAATTGT	TGTTAAATGT	7140
GACAAAGCCT	TTAAATGACT	CTCATTATCA	ATGGCTGCAA	TACAAATCAA	CAATCTTACC	7200

745

TCTTGTCTCG GATTATCCAA TAAATAAATC GGTCTTCCA AACTAACAT TGACATTCCT	7260
ATTCATTCA CACCTTCATC TGGCCGAGCG TGAGGAATTG CTAATCCCTT CCCTAAATTA	7320
ATAAAAGGTC CAAACTCTTC TACTTTTGA ATCATTGCCT CAGGGTAGTT CTCAGTTATC	7380
TTATCTTGAT CAAAAGCGG TTTAGCTGCT AAACGAATCG CCTCCTTCCA TCCTAATTTT	7440
TGCGAACTAA CCTGATAGGT TTCTTTGGTA ATAAGTTGTT CTAGCACTGG TACAATTTCC	7500
TTTCTATCAT TTTTGGTA AAGATAATTC TTTAACGCCA ATCTTAATTC CAATTCCTGT	7560
GTAATAATTC CATATCTTTT GACAATATTC AGGATTTGTT CAATCTCAA ATCTCCATAC	7620
TCTAAATTCG GAAATCTTT TAACACTAGT TCTACTAGTT GTATTGCTTG CTCCTCAGTC	7680
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GCGTCCATCA AGGGCATCAA AGAATCTTTG ACTAATTCAA ATAAATCAGG ATAATGTTCT	8040
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GGTATAAGGT GCGGCGAAG ATTTCTCTC AATCCTTCCC TTTGTTTAAA ATGTAACAAA	8160
GAAATATCTT CCATTCTACT TATAATAGCC TCTGTTAATT GATTAAAGTA AACCGAGCA	8220
ACATCTACTT CACCTTCAA GCAACTTGAT AATAAACGG TGATATAGCG ATAATCATCC	8280
TCAGAAAACA CCGTATCTAT AATCCCAA TCAACCACTG TATCCAATAA AATAGTGGTT	8340
ATATCTTGAA TAACAGGAGA TACTAATGTC TCTGAAAGAC ATACTCTTTC AACATCCCTT	8400
TGATACCTAC ACAGAATGAA TACTAAACCG AAAAGGTAAA CTTTAAATTG ATTAACAATA	8460
GGTACTAGCT GTAGCTTCTC ATAATAATCT TTAACCTAC GATCAATCAA ATCATAAGTT	8520
AATGAATACC CCAACTGGA TAAACATAA TCCAAACCCC AATCCCTAT GGAGGATTCC	8580
AGCAACTCAC TAACCATTTG AAAAGCTAAG CGGTGCTTAT TCCACTCTGA ACCGTGTAAA	8640
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AATGATTGAA TATCAGATAA GGTGTATTC TTAATTACTT TCAAAAAGTC TTGGTAATGA	8760
CTATTCGATA TAAATCTAA TCGGCAAAAA GTGTAAAGAT AGATTAAAGC TAAGCGAGTC	8820
GACTTTGGTA AAACCAATTC ATCCGACTTA ATAATATCTG TCAAAGACTG CTTCTGACGA	8880
TTTGATAAAC TATAGCGACC TTGCTTTTAA TCCAGCACTA TCCCTTTATT AGCTAGATAA	8940

746

GGCACTAAAT AATCTATTCC TTCTTTGACT TCCTTTATAG GTAAGCTCAC CTTAACAGAT	9000
AATTCATATA ACGATAGCTC ACAATGATCC ATCAAAGTCA TCAAAATAAC TAGTGCTCTA	9060
TAATCAAAC	9069

(2) INFORMATION FOR SEQ ID NO: 98:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8654 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 98:

CGAGACAACA AGATGAAGAA AAATTTGCCC TATCGTTTGT GGCGCTTGCA AGTGTAGCAC	60
TTCTTGCAGC CTGTGGAGAA GTGAAGTCTG GAGCAGTCAA CACTGCTGGT AACTCAGTAG	120
AGGAAAAGAC AATTAAATC GGTTTAACT TTGAAGAATC AGGTTCTTTA GCTGCATACG	180
GAACAGCTGA ACAAAAAGGT GCCCAATTGG CTGTTGATGA AATCAATGCC GCAGTGGTAT	240
CGATGGAAAA CAAATCGAAG TAGTCGATAA AGATAATAAG TCTGAAACAG CTGAGGCTGC	300
TTCAAGTTACA ACTAACCTTG TAACCCAATC TAAAGTATCA GCAGTCGTAG GACCTGCGAC	360
ATCTGGTGCG ACTGCAGCTG CGGTAGCGAA CGCTACAAAA GCAGGTGTTT CATTGATCTC	420
ACCAAGTGCG ACTCAAGATG GATTGACTAA AGGTCAAGAT TACCTCTTTA TTGGAACCTT	480
CCAAGATAGC TTCCAAGGAA AAATTATCTC AACTATGTT TCTGAAAAAT TAAATGCTAA	540
GAAAGTTGTT CTTTCACTG ACAATGCCAG TGACTATGCT AAAGGGATTG CAAAATCTTT	600
CCGCGAGTCA TACAAGGGTG AAATCGTTGC AGATGAAACT TTCGTAGCAG GTGACACAGA	660
CTTCCAAGCA GCCCTTACAA AAATGAAAG GAAAGACTTT GATGCTATCG TTGTTCTTGG	720
TTACTATAAT GAGGCTGGTA AAATTGTAAA CCAAGCGCGT GGCATGGGAA TTGACAAACC	780
AATCGTTGGT GGTGATGGAT TCAACGGTGA GGAGTTTGT CAACAAGCAA CTGCTGAAAA	840
AGCATCAAAC ATCTACTTTA TCTCAGGCTT CTCACTACT GTAGAAGTTT CAGCTAAAGC	900
TAAAGCCTTC CTTGACGCTT ACCGTGCTAA GTACAATGAA GAGCCTTCAA CATTTCAGC	960
CTTGCTTAT GATTCAAGTC ACCTTGAGC AAACGCAGCA AAAGGTGCTA AAAATTCAGG	1020
TGAAATCAAG AATAACCTTG CTAAACAAA AGATTTTGAA GGTGTAAGT GTCAAACAAG	1080
CTTCGATGCA GACCACAACA CAGTCAAAAC TGCTTACATG ATGACCATGA ACAATGGTAA	1140
AGTTGAAGCA GCAGAAGTTG TAAACCATA ATAGAAAAAT GTTGAAATAG GGAATGAGCC	1200
TTTGACTCAC TCCCTGTTTC GATATTTAAT ACTCTTCGAA AATCTCTTCA AACTGCGTCA	1260

ACGTCGCCTT GGATTATATA TGTGACTGAC TTCGTGAGTC TTATCTACAA CCTCAAAGCA	1320
GTGCTTTGAG CAACCTGCGG CTAGTTTCCT AGTTTGCTCT TTGATTTTCA TTGAGTATAA	1380
GAACCTATCA AAAAGTGAGG GAAAACCCTC GGAATTATAA ATAGAAAGAG TGAATCTTAT	1440
GCTCCAACAA CTCGTAAATG GTTTGATTCT AGGTAGTGTT TACGCGCTGT TAGCCCTAGG	1500
ATATACCATG GTTTACGGAA TTATCAAGCT CATCAACTTC GCCCATGGTG ATATTTATAT	1560
GATGGGAGCC TTTATCGGTT ATTTCTTGAT CAATTCCTTC CAAATGAATT TCTTTGTAGC	1620
GCTTATTGTA GCTATGCTAG CGACAGCTAT TCTTGGTGTC GTGATTGAGT TTCTTGCTTA	1680
CCGACCTTTG CGCCACTCTA CTCGTATTGC TGTTTTGATT ACGGCTATTG GGGTTTCTTT	1740
CCTATTGGAG TATGGAATGG TCTATCTGGT TGGTGCCAAT ACCCGTGCCT TCCCTCAAGC	1800
GATTCAAACA GTTCGATATG ATTTGGGACC AATTAGCTTA ACAAATGTGC AGTTAATGAT	1860
TTTGGCCATT TCCTTGATTT TGATGATTTT GTTACAAGTC ATTGTCCAAA AGACTAAGAT	1920
GGGGAAAGCC ATGCGTGCAG TATCAGTAGA TAGCGACGCG GCGCAATTGA TGGGGATCAA	1980
TGTAACCCTG ACGATTAGCT TTACCTTCGC TTTGGGTTCT GCTCTTGCGG GTGCGGCTGG	2040
TGTTCTGATT GCTCTTTATT ATAACCTCTT TGAGCCTTTG ATGGGGGTTA CTCCAGGTCT	2100
TAAATCTTTC GTTGCCGCAG TACTTGGTGG TATCGGAATT ATTCTGGTG CGGCTCTTGG	2160
TGGCTTTGTG ATTGGTCTAT TGGAAACCTT TGCAGCTGCC TTTGGGATGT CAGATTTCCG	2220
TGATGCCATT GTTTATGGAA TCTTGTGTT GATCTTGATT GTCCGCCAG CTGGTATCCT	2280
TGGTAAGAAT GTGAAAGAGA AGGTGTAAAC GATGAAGGAA AATTTAAAAG TTAATATTCT	2340
ATGGTTACTC CTTTGTGTAG CTGGCTATAG CTTGATTAGT GTACTGGTTT CAGTCGGAGT	2400
ACTTAATCTA TTCTATGTAC AGATTTTACA ACAAATTGGA ATTAATATTA TTTGGCTGT	2460
TGGTCTCAAC TTAATCGTTG GTTTTTCAGG ACAATTTTCA CTTGGTCATG CTGGTTTCAT	2520
GGCGATTGGT GCCTATGCAG CAGCTATTAT TGGTTCTAAA TCACCAACCT ACGGTGCCTT	2580
CTTTGGAGCT ATGCTTGTAG GGGCTTTGCT TTCAGGAGCA GPTGCCTTAC TTGTCGGCAT	2640
TCCAACCTTG CGCTTGAAGG GGGACTATCT TGCGGTAGCA ACTCTGGGTG TTTCTGAAAT	2700
TATCCGTATC TTTATCATCA ATGGTGGAAG CCTTACAAAT GGTGCGGCAG GTATCTTAGG	2760
GATTCCTAAC TTTACAACCT GGCAAATGGT TTACTTCTTT GTCGTGATTA CAACCATTCG	2820
AACCTTGAAC TTCTTGCGTA GCCCAATTGG TCGTTCAACC CTCTCTGTTT GTGAAGATGA	2880
AATCGCTGCT GAGTCAGTTG GGGTTAATAC GACTAAAATT AAAATCATCG CTTTGTCTTT	2940
TGGTGCCATT ACTGCAAGTA TTGCTGGGTC ACTTCAGGCA GGATTTATCG GGTCTGTTGT	3000

748

ACCGAAAGAT TACACCTTCA TCAACTCAAT CAACGTTTGG ATTATTGTTG TATTTGGTGG	3060
ACTCGGTTCC ATTACAGGTG CGATTGTTTC GGCTATTGTT CTGGGAATTT TGAATATGCT	3120
TCTCCAAGAT GTTGCTAGTG TCGGTATGAT TATTTACGCT TTGGCCTTGG TATTGGTAAT	3180
GATTTTCAGA CCAGGTGGAC TCCTTGGAAC ATGGGAACTG AGCCTATCAC GTTCTTTTAA	3240
AAAATCTAAG AAGGAGGAAC AAAACTAATG GCATTACTTG AAGTAAACA GTTAACCAA	3300
CATTTTGGTG GTCTAACAGC TGTGGAGAT GTGACTCTTG AATTGAACGA AGGGGAACTG	3360
GTTGGATTAA TCGGTCCAAA CGGAGCTGGG AAAACCACCC TTTTCAACCT TTTGACCGGT	3420
GTTTATGAAC CAAGCGAGGG AACAGTAACC CTAGATGGTC ACCTTTTGAA TGGGAAATCA	3480
CCTTATAAGA TTGCCTCTTT GGGACTTGGG CGTACTTTCC AAAATATCCG TCTCTTTAAA	3540
GATTTAACAG TTTTAGATAA TGTTTGTGATT GCTTTTGGAA ACCATCACAA ACAGCATGTT	3600
TTTACTAGTT TCTTACGCTT ACCAGCTTTT TACAAGAGTG AAAAGAATT AAAGGCTAAA	3660
GCTTTGGAAT TGTGAAAAT CTTGATTTA GATGGTGATG CAGAGACTCT TGCTAAAAAT	3720
CTTTCCTACG GACAACAACG TCGTTTGGAA ATTGTTCTGT CCCTTGCTAC GGAACCTAAA	3780
ATTCTCTTCT TAGATGAACC AGCAGCAGGT ATGAACCCAC AGGAAACAGC CGAATTGACT	3840
GAGTTAATTC GTCGTATCAA AGATGAGTTT AAGATTACAA TCATGTTGAT TGAACACGAT	3900
ATGAATCTGG TCATGGAAGT AACAGAACGT ATCTACGTAC TTGAATATGG CCGTTTAATC	3960
GCTCAAGGAA CTCAGACGA AATTAGACC AATAAACGCG TTATCGAAGC TTATCTAGGA	4020
GGTGAAGCCT AATGCTATG TTAAGTTG AAAATCTTTC TGTGCATTAC GGTATGATCC	4080
AAGCAGTTCG TGATGTAAGC TTTGAAGTTA ATGAAGGAGA AGTTGTTTCC CTTATCGGTG	4140
CCAACGGTGC AGGTAAGACA ACTATTCTTC GCACCTTGTC AGGTTTGGTT CGACCAAGTT	4200
CAGGAAAGAT TGAATTTTGA GGTCAAGAAA TCCAAAAAAT GCCAGCTCAG AAAATCGTGG	4260
CAAGTGGTCT TTCACAAGTT CCAGAAGGAC GCCACGCTCT TCCTGGCTTG ACTGTTATGG	4320
AAAATCTTGA AATGGGAGCT TTCTTAAAGA AAAATCGTGA AGAAAATCAA GCTAACTTGA	4380
AGAAGGTTT CTCACGCTTT CCTCGTCTTG AAGAACGGAA GAACCAAGAT GCAGCCACTC	4440
TTTCAGGGGG GGAACAACAA ATGCTTGCCA TGGGACGCGC CCTCATGTCA ACACCAAAAC	4500
TTCTTCTTTT AGATGAACCA TCAATGGGAC TTGCCCAAT CTTTATCCAA GAAATTTTGG	4560
ATATCATTC AAGATATTCAG AAGCAAGGAA CAACGGTCCT CTTGATTGAA CAAAATGCCA	4620
ATAAAGCACT TGCAATCTCT GACCGAGGAT ATGTAAGTGA AACAGGGAGA ATCGTCCTAT	4680
CAGGAACAGG AAAAGAACTC GCTTCATCAG AAGAACTCAG AAAAGCATAT CTAGGTGGCT	4740
AAAACAATCC AGTGGATTGT TTTAGTCGGC AGATGGAGAT TACGAAGTAA TCATCAATAT	4800

749

AGTCCGGGGG ACCTTTTATG TCGGTAGATT GAGATTGCAA ACAAATCTGC ATCTACATTG	4860
AAAGCTTAAT TTCTAATAAT TGAAAAAATC GAATGAAAAA TTTCTTACCT TCATTACAG	4920
AGCTCGATT T CAGAGCTCTT TTTGCTAGCT TATTCTACT TTTCTGAATT TCGAAAAAGA	4980
AATGTAAGCG TTTGATAGAT TTACAAAAAG ATTGTATAAT AGGGATAAGA ATAGAAAAGG	5040
AGAAGTCTCA TGGCAGTTAA AGATTTTATG ACCCGCAAGG TAGTTTATAT TAGTCCAGAT	5100
ATAACAGTAT CTCATGCAGC AGATTTGATG AGAGAGCAAG GTTTGCACCG TCTGCCTGTT	5160
ATCGAAAATG ATCAATTAGT TGGTTTGGTG ACTGAGGGAA CCATTGCACA AGCAAGTCCA	5220
TCTAAAGCAA CAAGTCTTTC TATCTATGAG ATGAATTATC TTCTGAATAA GACAAAAGTA	5280
AAAGATGTCA TGATTCCGA TGTGTCACT GTCTCAGGCT ATGCTAGTCT AGAAGATGCA	5340
ACTTATCTGA TGTGAAAAA TAAGATTAGT ATTCTCCCTG TCGTAGATAA CCATCAAGTA	5400
TACGGAGTTA TTAAGTACCG TGACGTTTTC CAAGCCTTTC TTGAAATTGC AGGTTATGGC	5460
GAAGAAGGGA TTCGTGTACG CTTTGTGACA GAAGATGAAG TTGGTGTCT TGGAAAAATT	5520
GTTTCTTTGA TTGTAGAAGA AAATTGAAT ATCTCCATA CAGTCAATAT TCCGCGTAAG	5580
GATGTAAGG TGATTATCGA AGTGCAAATC GATGGATCAA TTGATTACC AGCCTTGAAA	5640
GAAAAATTG AAGCAAATGG TATTCAAGTG GAAGAAATCG CTCGCACTTC AGCAAAAGTC	5700
TTGTAAGAAG GGAAGCCCAA AGGCTTCTTT TTTCAAGAAA AGGGGATTAG AGCAAAAGAT	5760
GGAAAGAAAT GATAAATAT GCTATAATGA AATAATGTAA AAAAGGAGTA TTTATGGACA	5820
TTTCAGTAAT TCGTCAGAAA ATTGACGCAA ATCGTGAAAA ATTAGCTTCT TTCAGGGGGT	5880
CTCTTTGACC TCGAAGGGCT AGAGGAAGAG ATTGCCATCT TGGAAAACAA GATGACAGAA	5940
CCTGATTTT GGAACGATAA TATTGCGGCC CAAAAACGT CGCAAGAATT AAATGAATTA	6000
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CTTGATAAGA TAATGACCAG CTACGAGATG ACTCTACTCT TGTCAGAACC TTATGACCAC	6180
AACAATGCCA TCTTGGAAT CCATCCAGGT TCTGGTGGTA CTGAGGCGCA GGAAGGGGT	6240
GATATGTTGC TTCGTATGTA TACTCGTTAT GGTAAATGCTA AAGGCTTTAA AGTGGAAGTG	6300
TTGGATTACC AAGCAGGTGA TGAGGCTGGT ATTAAGTCGG TAACTTTATC ATTTGAAGGG	6360
CCTAATGCC TATGCTCCT CAAGTCAGAA ATGGGTGTTT ACCGCTTAGT GCGAATCTCA	6420
CCATTGACT CTGCCAAACG TCGCCATACC TCTTTCACAT CTGTAGAAGT GATGCCAGAA	6480
TTGGATGATA CTATTGAAGT GGAAATCCGT GAAGATGATA TCAAGATGGA TACCTCCGT	6540

750

TCAGGTGGTG CCGGTGGACA AAACGTCAAT AAGGTTTCAA CAGGTGTACG TTTAACCAC	6600
ATTCCAACGT GAATTGTTGT CCAATCAACA GTAGATCGTA CCCAGTATGG AAATAGAGAT	6660
CGTGCCATGA AGATGTTGCA GGCTAAGCTC TATCAAATGG AGCAAGATAA GAAGGCTGCG	6720
GAGGTAGATT CTCTCAAAGG TGAGAAAAAG GAGATCACTT GGGGAAGCCA AATCCGTTCT	6780
TATGTCTTCA CGCCTTATAC TATGGTAAAA GATCACCGAA CTAGCTTTGA GGTGCTCAG	6840
GTAGATAAGG TTATGGATGG GGACCTAGAT GGTTTTATCG ATGCTTATCT CAAGTGGCGA	6900
ATTAGCTAAG ATAGAAAGGA ACTCACATGT CAATTATGA AATGAGAGAT GTCGTTAAAA	6960
AATACGACAA CGGAACAACCT GCTCTACGCG GTGTTTCGGT TAGCGTTCAA CCGGGGGAAT	7020
TTGCTTACAT CGTAGGACCT TCAGGAGCAG GGAAGTCAAC TTTTATTCGT TCTCTGTATC	7080
GTGAAGTAAA AATCGATAAA GGAAGCCTAT CAGTTGCTGG TTTAATCTG GTTAAGATCA	7140
AAAAGAAAGA TGTCCCGCTT CTACGTCGTA GTGTTGGGGT TGTCTTCCAG GATTATAAAT	7200
TGTTACCAAA GAAACTGTC TATGAAAATA TTGCTTACGC TATGGAAGTA ATCGGGGAAA	7260
ATCGCCGTAA TATCAAAGA CGAGTGATGG AAGTPTTGA CTGGTTGGA TTGAAGCATA	7320
AGGTTCTGTT TTTCCCAAT GAACTCTCAG GTGGGGAGCA ACAGCGGATT GCGATTGCGC	7380
GTGCAATTGT AAATAATCCC AAAGTATTGA TAGCTGATGA GCCAACAGGA AATCTGGATC	7440
CGGATAATTC ATGGGAAATT ATGAATCTCT TGGAACGGAT TAACyTACAA GGAACAACTA	7500
TTTTGATGGC GACTCATAAT AGCCAGATTG TAAATACCTT GCGCCACCGT GTCATTGCCA	7560
TTGAAAATGG CCGTGTCTGT CGTGACGAAT CAAAAGGAGA GTATGGATAC GATGATTAGT	7620
AGATTTTTTC GCCATTTATT TGAAGCCTTA AAAAGTTTGA AACGAAATGG TTGGATGACA	7680
GTAGCTGCTG TCAGTTCAGT CATGATTACT TTGACCTTGG TGGCAATATT TGCATCTGTT	7740
ATTTTCAATA CAGCGAACT AGCTACAGAT ATTGAAAATA ATGTCCGTGT AGTAGTTTAT	7800
ATCCGAAAGG ATGTGGAAGA TAATAGTCAG ACAATTGAAA AAGAAGGTCA AACTGTTACA	7860
AATAATGACT ACCACAAGGT ATATGATTCT TTGAAGAACA TGTCTACGGT TAAAAGTGT	7920
ACCTTTTCAA GTAAAGAAGA ACAATATGAA AAATTAACCG AGATAATGGG AGATAACTGG	7980
AAAATCTTTG AAGGAGATGC CAATCCTCTC TATGATGCCT ATATTGTAGA GGCAAACACT	8040
CCAAATGATG TAAAACTAT AGCCGAAGAT GCTAAAAAAA TTGAAGGTGT CTCTGAGGTT	8100
CAAGATGGCG GTGCCAATAC AGAAAGACTC TTCAAGTTAG CTTCAATTAT CCGTGTTTGG	8160
GGACTAGGGA TTGCTGCTTT GTTAATTTTT ATCGCAGTTT TCTTGATTTC AAATACCATT	8220
CGTATTACCA TTATTTCCCG CAGTCGCGAA ATTCAAATCA TGCGCTTGGT CGGAGCTAAA	8280
AACAGTTATA TCCGTGGACC GTTCTTGTTA GAAGGAGCCT TTATCGGTTT ATTGGGAGCT	8340

751

ATCGCACCAT CTGTTTGGT CTTTATGTT TATCAAATG TTTACCAATC TGTCACAAA	8400
TCGTTGGTAG GGCAAAATCT ATCCATGATT AGTCCAGATT TATTTAGTCC GTTGATGATT	8460
CCCCTACTAT TTGTGATTGG GGTTCATT GGTTCATTGG GATCAGGAAT ATCCATGCGC	8520
CGATTCTTGA AGATTTAGGT AAAATAGCTG CTTTATGAG GAGATTGTAA AATCTCCTTT	8580
TTTGCTACAA GAGTTTGA AAAGAGATGC GCAGAAGAAA AGAGCTTCCA AAGAAGTCCC	8640
CCAGAGAAGA CTTC	8654

(2) INFORMATION FOR SEQ ID NO: 99:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 19718 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 99:

TGTCGCGTCA AAATCATTAC TATGGCTATG TATAGCCCTT ACTATGACTT GGCTAAACAC	60
GTTCGCTTTC AAATTTCTAG GCTCAGGCTG AAACAGTCTC CCAGGCTGTT CACTCCCGAA	120
TGCTAAAATC GTTCTTGATC GCTTTCACAT TGTACAACAT CTTAGCCGTG CTATGAGTCG	180
TGTGCATGTC CAAATCATGA ATCAGTTTCA TCGAAAATCC CATGAATACA AGGCTATCAA	240
GCGCTACTGG AAACATTC AACAGGATAG CCGTAAACTG AGTGATAAGC GATTTTATCG	300
CCCTACTTTT CGCATGCACT TAACAAATAA AGAAATCTT GACAAGATTT TAAGCTATTC	360
AGAAGACTTG AAACACCACT ATCAGATCTA TCAACTCTTA CTTTTTCACT TTCAGAACAA	420
AGACCCTGAG AAATTTTTCG GACTCATTGA GGACAATCTG AAGCAGGTTT ATCCTCTTTT	480
TCAGACTGTC TTTAAACCT TTCTCAAAGA TAAAGAAAAG ATTATCAACG CCCTTCAACT	540
ACACTATTCT AATGCCAAAC TGAAGCGAC CAATAATCTC ATCAAACCTA TCAAGCGCAA	600
TGCCTTTGGT TTTCGAAACT TTGAAAACCT CAAAAACGG ATTTTATCG CTTTGAACAT	660
CAAAAAGAA AGGACGAAAT TTGTCCTTTC TCGAGCTTAG CTGACTTCAA CCCACTACAG	720
TTGACAAAGA GCCTAATTC CATAAAAT GACATGAAA TTATAAAACC ATTACTAGTT	780
TAGTCCTTTT TGATAACGTG CCAATTCGGC TTGGTTCGCC CAAACATAGT GACCTGGACG	840
GATTTCTACC ATAGATGGCT TATCAGTCTC ATAGTCGTGT TGAATTGGAT CGTAAACCTT	900
CAAGACCTTC TTACGTTCCA AGATTGGATC TGGGATTGGT ACCGCTGAAA GCAAGGCTTG	960
AGTATATGGG TGAATTGGAT TGTAAACAA TTCTTCTGTT TCTGCAACCT CTACAATAAC	1020

752

ACCCTTGTA	ATAACTGCCA	TACGATCTGA	AATAAAGCGA	ACAACCGACA	AGTCATGGGC	1080
GATGAAGAGA	TAGGTCAGGC	CGAGCTCTTT	TTGGAATTTT	TTGAGCAAGT	TCAAGACTTG	1140
GGCACGTACA	GAAACGTCCA	AGGCTGAAAT	TGGCTCATCT	GCAATAACAA	AGTCTGGTTG	1200
CATGACCAAG	GCACGGGCAA	TACCGATACG	TTGACGTTGA	CCGCCTGAGA	ATTGATGAGG	1260
GTAACGAGTC	AAGTGCTCAG	CAAGAAGACC	TACTTCACGG	ATAATATTTT	GAACCTTCTC	1320
TTTACGTTCT	TCTTCATCCT	TAAATAAAGC	GTGATTGTAA	AGACCTTCAG	AAATAATATA	1380
ATCAACAGTC	GCACGTTTAT	TCAAACCTGC	GGCAGGGTCT	TGGAAAATCA	TCTGGATTCTG	1440
ACGAATCAAT	TCCGACGCTT	GTTCACGCGA	TTTCTTACCA	TTAATCTTTT	GACCATCAAA	1500
AATGATATCT	CCATTACTTG	TATCATTTAG	ACCGATGATA	GCACGACCAA	TAGTTGTTTT	1560
CCCACTACCG	GACTCACCTA	CAAGCGAGAA	AGTTTCTCCC	TTGTTGATAA	AGAAGTTAGC	1620
ATTTTAAACC	CGGACAAACT	TCTTACTTCC	TTACCGAAG	GAAATTTCTA	AATCTTTGAT	1680
TTTACTAAT	TTTTAGACA	TTTCTTCTCT	CCTAGTCAGC	CAGATGGGCA	AATCCCATT	1740
TTTCACGGAT	CTTATCATGG	AGATTGCAA	TCACAGCTGG	TTTTTCTACT	TTCGGAGCAT	1800
CCTCATGAAG	AAGCCAAGTT	TTAGCCCAAT	GTGCTCTGTA	TACTGAGAAT	TGAGGAGCTT	1860
TTTGTTCGAA	GTCAATCTGC	ATTGCGTAGT	CAGAACGCAA	GGCAAAAGCA	TCCCTTTCA	1920
GGTCAGTATA	AAGTGACGGA	GGTGTTCCTG	GGATTGAGTA	AAGATCCCCCT	TTATCATCAG	1980
CAAGCTGAGG	CAAGCTAGAC	AAGAGACTCC	ATGTATATGG	ATGGCGAGGG	TCATAGAAGA	2040
CTTCTCAAC	CGTTCCATAC	TCAACGATT	CTCCTGCATA	CATAACCGCT	ACCTTATCCG	2100
CAATACTTGC	CACCACACCA	AGGTCGTGGG	TAATAAAGAT	TGTTGTGAAA	TGATACTCGT	2160
TTTGTAAGA	TTTTAGCAA	TCAATAATCT	GAGCTTGAAT	AGTTACATCC	AAGGCAGTTG	2220
TTGGCTCATC	ACAGATCAAG	ACATCAGGTC	GGCAGGCAAG	GGCAATAGCA	ATAACGATAC	2280
GTTGACGCAT	TCCTCCAGAA	TATTGGAATG	GGTATTCATT	AAAACGTCTA	TCTGCGTCTG	2340
GAATGCCAAC	CTTATTCATG	TAGTCAATGG	CCAATTCTTT	CGCTTCTTTA	GCTGTTTTC	2400
CTTGGTGTTC	TACAATAACT	TCTGTAATCT	GACTACCAAT	TGTTTTAATG	GGGTCCAAAC	2460
TAGTCATTGG	GTCTCGAAG	ATAGTCGCAA	TCTTAGCACC	ACGAATTTGT	TCCCAATCCT	2520
TGTGAGAAGA	TAAAGCTGTC	AAGCTCTGAC	CACGGTAGTC	AATACTACCT	TGGGCAATAC	2580
GACCATTTTC	TTGAGCATA	CCTGTGAAGG	TCTTTGTCAA	AACAGATTTA	CCTGATCCTG	2640
ACTCACCTAC	CAAGGCTAAT	ACTTCTCCTT	CGACTAGTTC	AAGGGAAACG	CCGCGAATGG	2700
CTGTCAATAC	TTTGTACGA	ACGTCAAAT	CCACGACAAT	ATCGCGAGCA	GTCAAAATTA	2760
CATTTTTTTC	TTTTGTCAAT	TCTACTCCTA	TCTATGTGTA	CGTGGATCAC	TAGCATCCGC	2820

753

TAAGTTTGA CCAACTACGA AAAGGGACAA GGATACCAAG ACAAGGGTTG TCAATGGAAT	2880
CCAGAACAAG TAAGCATTGG TTGTTACGTT TTGTGAATAA TCCGAAATCA AACGACCCAA	2940
ACTTGGCACT GTAATCGGTA ATCCAAGACC GAAGAAAGAC AAGAAGGCTT CGTATGAGAT	3000
AAAGCTTGGA AGCATTTGAG TCATGGTTGT CACAATAACA GATACCAATT GAGGCATGAT	3060
ATTTTGGCA ACAATCTTCA AGGTTGGTGT TCCCAAAGTA CGTGACGCCA AGTTGTATTC	3120
CAAGTCACGA TAGCGCAAGA TTTGCACACG GATCATGAAG GCAATACCAA TCCATGTTGT	3180
TACGCTCATG GCAAAAATCA GATFCCAGAA TCCAGCTCCG ATTGAGTAAG TCAAGACAAT	3240
AACAATCAAA AGAGGTGGGA TGTTTGAGAT GACGTTGTAA ACTTCCATCA TGACACGGTC	3300
AACGTATTTT GAAATACCCC AAATACCACC GACAAAACA CCGATAACCA AGTTAATCAC	3360
TGTCGCAATC ACAGAAATGA GGATGGAGTT ACGAGCTCCG AACCAGACAC CGTCAAAGAG	3420
CGATTTACCG TTACTGTCAG TACCGAACCA ATGCTCCGCA TTTGGCTTGA TATAACGAAC	3480
ACTAAAGTCG TTTACCTTGC TGACATCATT GAAATCAAAC TTAGAAAACA TTGGGTAGAT	3540
GAAACTTATC AAAATGATGG CTACCAAGAT TCCCAACATG ACTACAGTTG ATTTTTCCTT	3600
CATAAATGT TTAACACTG ATTTCCAGTA AGAATATGCT GGCGCATCAA TAGTTTCAGA	3660
GGCAAAATCG TCACGTTTAA CAACTGAAA TTTTCTTTA TCGATTGTAG ACATTATTTG	3720
CCTCCTTCT CAGTCAATTT AATACGTGGG TCAATAATAG TCATCCAAAT ATCTCCCAA	3780
AGACGTGAGA AGATAGAAAT ACATGTAAAG ATGAAGACAA GACCAACGAC CATAGAGTTA	3840
TTAGATGCTT TTACAGAGTC AATCAACATT TTACCCATAC CTGGGAAGGC GAAGACTGTT	3900
TCAGTAAGGG TTGCACCACC GATAACCCCA ATAATGGCAG CAGGAATTCC TGAACCAGC	3960
GGAAACCATG CATTTTAAA GATGTGTTG TTTGAAATTT CTTTTCAGA CAAACCTTTT	4020
GCACGAGCGA AACGAACAAA GTCTTGAGAT TGCAAGTCAA TCATGTAACG ACGAATCCAA	4080
ATGGCTGTAC CAGGAGCACC CAACAAACCA AGGATGACTG CTGGTAAAAC GTAAGAACGC	4140
CAATCTCCAG CTCCAAGAT AGGGAATGAA TCTGGAAGGG CAATAGATGA TCCAATCAAT	4200
CGAACGATGT AAACCAAGGC AATCGTTGGA AGAGCAAGCA AGAAGGTCAA AGCCCTGTT	4260
GAGAGGCTAT CAATCCAAGT GTTCTTGAAA CGAGCCATGG CTGAACCAAG TGGCACGGCA	4320
AGAGCATAGG CAAGAACCAA ACCAATCAAA CCAGTAATAG CAGAGCTGAC AATCATAGAT	4380
GGATATTGGT AATTACTTTC AGTCGCTGTA TAAGGATCAT CTTTCCATA GCTAGCTACT	4440
TCACGAGAGT CAGCCTGACT AGGTGACTTG TAGGTTCTTG AGTAAATATT TACAGAAGAC	4500
GTPTTCTTAC CTGTTGGGAA CTGAACTTGG GCAGTTTGG TTTGTCCTTG ACCTTGAGTA	4560

754

ATAACCTGAA GAACTGGTGT ATTAGCATAG GTTGGGTAAG AGTCACCTAA ATTCAAGTTC	4620
ACAAAGTTT GATGAACAAA TGGGAAGTGA CTGTTAAAGT ACAAGAGATA TTTATGTTTA	4680
GTTCTGAAC CGACCAATGA CCATCCGATA GCTGGATCAT TTTCAAAACG AAGGTAGCGT	4740
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GCATAGAAGT GAAAAACACG TTCAAAAATT GGAATTTTAC GAGTAGCATA GAATTGACCA	4860
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755

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756

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757

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758

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760

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761

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762

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TTAATAATAT AAAAGGAGGA TGTGGGATTC GAACCCACGC ACGCTTTTAC ACGCCTGACG	18840
GTTTTCAAGA CCGTTCCCTT CAGCCGGACT TGGGTAATCC TCCAATATTC AAATGGACCT	18900
TGTAGGACTT GAACCTACGA CCACTCGGTT ATGAGCCGAG AGCTCTAACC AGCTGAGCTA	18960
AAGGTCCGAC AAGATCATTA TAGCGGCGAA GGGGATCGAA CCCCCGACCT CCCGGGTATG	19020
AACCGGACGC TCTAGCCAGC TGAGCTACAC CGCCATGAAT CGGGAAGACA GGATTCGAAC	19080
CTGCGACACC TTGGTCCCAA ACCAAGTACT CTACCAAGCT GAGCTACTTC CCGAGTTAAA	19140
TAGAAAAATG CACCCTAGAG GAGTCGAACC TCTAACCGCC TGATTCTAG TCAGGTACTC	19200
TATCCAGTTG AGCTAAGGGT GCTCCATATT ATGCCGAGGA CCGGAATCGA ACCGGTACGA	19260
TCGTTACCAA TCGCAGGATT TTAAGTCCTG TCGGTCTGCC AGTTCCGCCA CCCC GGCCCTC	19320
TCTAAGCGAA CGACGGGATT CGAACCCGCG ACCCCACCT TGGCAAGGTG GTGTTCTACC	19380
ACTGAACTAC GTTCGCACTG TTTTCTTCTA TCTAAAAATG CCGGCTACAT GACTTGAACA	19440
CGCGACCCTC TGATTACAAA TCAGATGCTC TACCAACTGA GCTAAGCCGG CTCATTGTGT	19500
ATATCTTAAT GCGGGTTAAG GGACTTGAAC CCCACGCCG TTAAGCGCCA GATCCTAAAT	19560
CTGGTGCGTC TGCCAATTCC GCCAAACCCG CATATATGAC CCGTACTGGG CTGGAACCAG	19620
TGACCCATTG ATTAAAAGTC AATTGCTCTA CCAACTGAGC TAACGAGTCT AAAATAACTT	19680
GCGTTACCTT AAACGGTCCG ACGGAATCGA CCCGGTAC	19718

(2) INFORMATION FOR SEQ ID NO: 100:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4117 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 100:

CCGTGGA AAA GTCTGGATAG TGAATGGTCT TCACACAATG ACCTGAAAGA AGCCTGAGAA	60
TAATTATGGA GAGTAGCATT CTGAGAGGTG TTAGCAGAAC CATATGACAG AGCTGTTTGA	120
AGAGGGAATA TTGAGGAGAA AAATCCTGAG CCTACCAGTT GGAGTTGGAA AGAGCTGACT	180
GTTAGATCAT GGTATTATTAT CCACAACCTG TGGATAACTT TGTGAATAAG AGAAGTTGCT	240
AAAGAAGGAG ATATATAACG ATGAAGAAAA TCAAACCGCA TGGACCGTTA CCAAGTCAGA	300
CTCAGCTAGC TTATCTGGGA GATGAAGTAG CAGCTTTTAT CCACTTCGGT CCTAATACCT	360
TTTATGACCA AGAATGGGGG ACTGGACAGG AGGATCCTGA GCGCTTTAAC CCGAGTCAGT	420

763

TGGATGCGCG TGAGTGGGTT CGTGTGCTCA AGGAAACGGG CTTCAAAAAG TTGATTTTGG	480
TGGTCAAGCA CCACGATGGC TTTGTCTTTT ATCCGACAGC TCACACAGAT TATTCGGTTA	540
AGGTCAGTCC TTGGAGGAGA GGAAAGGGCG ACTTGCTCCT TGAAGTATCC CAAGCTGCCA	600
CAGAGTTTGA TATGGATATG GGGGTCTACC TGTCACCGTG GGATGCCCAT AGTCCCCTCT	660
ATCATGTGGA CCGAGAAGCG GACTACAATG CCTATTATCT GGCTCAGTTG AAGGAAATCT	720
TATCAAATCC TAACTATGGG AATGCTGGTA AGTTCGCTGA GGTTTGGATG GATGGTGCCA	780
GAGGAGAGGG CGCGCAAAAG GTTAATTATG AATTTGAAAA ATGGTTTGAA ACCATTCGTG	840
ACCTGCAGGG CGATTGCTTG ATTTTTCCTT CAGAAGGCAC CAGTATCCGC TGGATTGGCA	900
ATGAACGAGG GTATGCAGGT GATCCACTGT GGCAAAAGGT GAATCCTGAT AAACCTAGGAA	960
CAGAAGCAGA GCTGAATAT CTTCAGCAGC GGGATCCCTC GGGCAGGATT TTTTCAATCG	1020
GAGAGGCAGA TGTTCCTATC CGTCCAGGCT GGTTCCTACCA TGAGGATCAG GATCCTAAGT	1080
CTCTCGAGGA GTTGGTCGAA ATCTACTTTC ACTCAGTAGG GCGAGGAACT CCACTCTTGC	1140
TTAATATTCC GCCGAATCAA GCTGGGCTCT TTGATGCAA GGATATTGAA CGACTTTATG	1200
AAATTGCGAC CTATCGCAAT GAGCTCTATA AAGAAGATTT GGCTCTGGGA GCTGAGGTAT	1260
CTGGTCCAGC TCTTCCGCA GACTTTGCTT GTCGCCATTT GACAGACGGC CTTGAGACCA	1320
GCTCTTGGGC AAGCGATGCA GACTTGCCCA TCCAGTTAGA ACTCGACTTA GGTCTCTCTA	1380
AAACTTTTGA TGTAAATTGAG TTAAGAGAAG ATTTGAAGCT AGGGCAACGA ATCGCTGCTT	1440
TTCATGTGCA AGTAGAGGTG GATGGTGTCT GGCAGGAGTT TGGTTCGGGT CATACTGTTG	1500
GTACAAACG TCTCTTACGA GGAGCAGTTG TTGAGGCACA GAAGATACGT GTAGTCATTA	1560
CAGAATCACA GGCTTTGCCT TTGTTGACCA AGATTTCCTT TTATAAACT CCTGGATTAT	1620
CAAAAAAGA AGTTGTTTCA GAACTAGCAT TTGCAGAAAA AAGCCTAGCT GTGGCAAAGG	1680
GAGAAATGC CTATTTTACA GTTAAGCGCA GAGAATGTAG TGGTCCTTTA GAAGCTAAGA	1740
TTTCGATTCA ACCGGGGACA GGTGTCCATG GTGTCGCCTA TCAGGATGAG ATTCAAGTCC	1800
TTGCGTTTCA AACTGGTGAG ACTGAAAAAA GTCTGACGCT ACCAACCTTG TATTTTCGAG	1860
GAGATAAAC CTTGGATTTT TATCTGAACC TAACGGTGA TGGTCAGCTT GTGGATCAAC	1920
TTCAAGTCCA AGTTTCATAA AAGAAGAACC TTTGCGCGAT GCAAAGGTTT TTTTGGTTAT	1980
TAGTGACTTG GTAACCAGCT GAGGGTGAAA GTTAGTTGTT CAGCTTTTAA GAGGTCTTGG	2040
TGTTGAATAG TTGATACGAG TGTTTTGTCC AGTCGGCATT CTTTGACAAA GTTAAATGG	2100
TTGTGGTTT GTTAGTATG GATATCCAGC CATTTATCTT CTTTAGCGAG GTAGACTCGT	2160

764

AGATGGTCAA AGAGAGGGAT TCCGAGGTCA TAGCTTGGTT TTCCTGGACA GGTGGATAA	2220
AATCCGAGAG CTGACCAGAT GTACCAAGCA GAGAGACTAC CATGTCTTC ATCTCCAGGA	2280
TAGGCTTCCC AACTTGGGTG AAAAGCTTTC TGACGGAGCG TCTTGATAAG AAGGGCAGTG	2340
TAGTCAGGGT AATCGCTGTA ACGGAAGAGA TAAGGAATGT GGAAACTAGG CTGCTGGAA	2400
ATGGCTATTT GTCCAAAAGG AGCAGTAGCC ATCTCGCTCA TTTCGTGAAT TTCGTAACCA	2460
TAGCCTGTTG TTTCAAAGAG GGGAGCATCT TGACAGGCTT TCAAAAGATA GTTGCTAAAG	2520
GTTTCTTTTC CACCCATCAG TTGGATTAAAG CCAGGGATGT CGTGGAGAAC GCCTAAAGTA	2580
GCTTGAATGG CAGAGCATTC AGCGTAGTCT CGCCCCAAC TATAAGGAGA GAAGTCAGGG	2640
TGAAAGTTTC CTTGATTGTC TCGTGCTCGC ATGTAACCTG TCTCAGCGTC AAATAGCTGG	2700
CGGTAATTTT GTGAAGCAGC CTTGTAGGTT TCAGCGATTT CTATGTTCTC TAGTTTTTTG	2760
GCACAGCTGG CGATACAAAA GTCACATATAG GCATAGTCTA GAGTATGGCT AACACTTTCG	2820
TGGTGGTCGG TAGAGAGGTA ACCTAGTTCT TGATATTGGG CTAGTCCGTG GCGGCCATTG	2880
ATGCCGAGAG GGTGCGCTTT GCTGGCTGTT TCGAGCATGG CTTGGAAGAG TTCTCCTTCT	2940
AGGTCGGGGG TCATGTCTTT GCAGGCGCTA TCTGCGATAA TACCGTCTAA AAGGTACCT	3000
GGCATCATAC CCCGTTTCATC TGGAGCCAGC CATTTTGGAA GGAAACCAGT ATCGCGGTAG	3060
CTATTGAGGA AACCTTCTAA AAAGCGTTGA TAGTGCTCCG GTATGATAAG GGCAAAGAGG	3120
GGGAAGGTGG TGCGGAAGGT ATCCCAGAAA CCATTGTTGC TAAAGAGGAC ACCAGGCTTG	3180
ACAGTACCAG TAGCCAGATC CATGTGGATG GCTTGCCCTG ATTCATTAAT CTCATAAAAA	3240
GTCTGTGGGA AGAGGAAGAG TCTGTAGAGG CAGTGGTCAA AGAAGGTTCG GTCAGCCTCT	3300
CCTGTCTCTA TAATGTCAA ACGATGGAGG AGATTTTCCC AATCCACTTG GGCACCTGAT	3360
TTACAGCTAT CAAAATCTTC TTGAGGTAGA TTGATTAGAG CTTGAGAAGG AGAGATGAAA	3420
GAAGTGGCTA GTTGCACTC GGTTTGACTA CTTGCTAAGT CAATTCGCCA GTCTCCAGCT	3480
TCTTGGCTGA TAGCAAGAAT ATCCGTGTTT ATTTGCAGGG CAGTGAACAT CGTTAGCGAA	3540
TTTTTGTTAG TTTCAGTTT ACCTTCTTGT CGCAGGGCAA GAGTCCGCTT ATCTACTTGC	3600
TCTACTGTCA GTTCATCTGC TGCCTGAAGA TAGAGGGAGA GGGCTTTGCC TTGCTTTTGA	3660
TTCAAACGAA TAGAAGCACC ATAGCAAGTC GGTGTGAGCT GGGTTTCAAT CTGATAACGC	3720
AGAGAAAAGA GCTTCAAATA GTGAGGCTGG AAGCAAGCTT TATCTATATC ATAAGAAGAC	3780
TGGCGGTGAA AGAGGCTGTC TCCCCCAGT TGAAGGTGA CAGGTGTCAG AAGGAGCCAA	3840
GAGTAGTCCC CAATCCAAGG ACTGGGCTGG TGAGTTAATC GAATCCCCTG AAAGATAGGC	3900
AGATGTGGAT CAAAAACCA AGATCCATCC TGGTCACTGG TCTGGGGCAC AAAGTAATTC	3960

765

ATCCCAAAG GCACGCCTGT GTATGGCAGG GTATTTCCTCC GAGAAAAGGC ATGCTTGTG 4020
GTAGTTCCAA AACGGGTATC GATGGTATCA AGTAGTGGT TCATAGTCTT TCCTTTAGCT 4080
GTTTTTCTAC ATTATATCAG TAATAGAGGG CCTTTAG 4117

(2) INFORMATION FOR SEQ ID NO: 101:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2727 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 101:

CTGGTTCAAT TATTATTCAC TCTAAGTAGT CATATGTTCT TTATTTATGT GAGTTTTTAC 60
CTTTTAAAGG ATCTTGTTAG ATGGGAGAAG GTTTTAAAAG TGACAGATGA TAATACAAGA 120
AAAGTTCGTT TATTAGTAGC CTTTTTTAGC ATTGTCATAG GCTACATCCT GAGTTCTTTC 180
TTTATTAGCC TGTATCATTT GTGCAAGAA GCGCTTAGAG GATTATTATG AAATCAAGAG 240
TAAAGGAAAC GAGTATGGAT AAAATTGTGG TTCAAGGTGG CGATAATCGT CTGGTAGGAA 300
GCGTGACGAT CGAGGGAGCA AAAAATGCAG TCTTACCCTT GTTGGCAGCG ACTATTCTAG 360
CAAGTGAAGG AAAGACCGTC TTGCAGAATG TTCCGATTTT GTCGGATGTC TTTATTATGA 420
ATCAGGTAGT TGGTGGTTTG AATGCCAAGG TTGACTTTGA TGAGGAAGCT CATCTGTCA 480
AGGTGGATGC TACTGGCGAC ATCACTGAGG AAGCCCCCTA CAAGTATGTC AGCAAGATGC 540
GCGCTCCAT CGTTGTATTA GGGCCAATCC TTGCCCGTGT GGGTCATGCC AAGGTATCCA 600
TGCCAGGTGG TTGTACGATT GGTAGCCGTC CTATTGATCT TCATTTGAAA GGTCTGGAAG 660
CTATGGGGGT TAAGATTAGT CAGACAGCTG GTTACATCGA AGCCAAGGCA GAACGCTTGC 720
ATGGTGCTCA TATCTATATG GACTTTCCAA GTGTTGGTGC AACGCAGAAC TTGATGATGG 780
CAGCGACTCT GGCTGATGGG GTGACAGTGA TTGAGAATGC TGC CGTGAG CCTGAGATTG 840
TTGACTTAGC CATTCCTCTT AATGAAATGG GAGCCAAGGT CAAAGGTGCT GGTACAGAGA 900
CTATAACCAT TACTGGTGTT GAGAACTTC ATGGTACGAC TCACAATGTA GTCCAAGACC 960
GTATCGAAGC AGGAACCTTT ATGGTAGCTG CTGCCATGAC TGGTGGTGAT GTCTTGATTG 1020
GAGACGCTGT CTGGGAGCAC AACCGTCCTT TGATTGCCAA GTTACTTGAA ATGGGTGTTG 1080
AAGTAATTGA AGAAGACGAA GGAATTCGTG TTCGTTCTCA ACTAGAAAAT CTAAGAGCTG 1140
TTCATGTGAA AACCTTGCCC CACCCAGGAT TTCCAACAGA TATGCAGGCT CAATTTACAG 1200

766

CCTTGATGAC AGTTGCAAAA GGCGAATCAA CCATGGTGGA GACAGTTTTC GAAAATCGTT	1260
TCCAACACCT AGAAGAGATG CGCCGCATGG GCTTGCATTC TGAGATTATC CGTGATACAG	1320
CTCGTATTGT TGGTGGACAG CCTTTCAGG GAGCAGAAGT TCTTCAACT GACCTTCGTG	1380
CCAGTGCGGC CTTGATTTTG ACAGGTTTGG TAGCACAGGG AGAAACTGTG GTCGGTAAAT	1440
TGGTTCACCT GGATAGAGGT TACTACGTT TCCATGAGAA GTTGGCGCAG CTAGGTGCTA	1500
AGATTCAGCG GATTGAGGCA AGTGATGAAG ATGAATAAGA AATCAAGCTA CGTAGTCAAG	1560
CGTTTACTTT TAGTCATCAT AGTACTGATT TTAGGTACTC TGGCTCTAGG AATCGGTTTA	1620
ATGGTAGGTT ATGGAATCTT GGGCAAGGT CAAGATCCAT GGGCTATCCT GTCTCCAGCA	1680
AAATGGCAGG AATTGATTCA TAAATTTACA GGAAATTAGG CTGGAGAACC AGCCTTTTTC	1740
TAAAGATAAG GAGAAATATG AACAAAAAAA CAAGACAGAC ACTAATCGGA CTGCTAGTGT	1800
TATTGCTTTT GTCTACAGGG AGCTATTATA TCAAGCAGAT GCCGTCGGCA CCTAATAGTC	1860
CCAAAACCAA TCTTAGTCAG AAAAAACAAG CGTCTGAAGC TCCTAGTCAA GCATTGGCAG	1920
AGAGTGCTTT AACAGACGCA GTCAAGAGTC AAATAAAGGG GAGTCTGGAG TGGAATGGCT	1980
CAGGTGCTTT TATCGTCAAT GGTAAATAAA CAAATCTAGA TGCCAAGGTT TCAAGTAAGC	2040
CCTACGCTGA CAATAAAACA AAGACAGTGG GCAAGGAAAC TGTTCCAACC GTAGCTAATG	2100
CCCTCTTGTC TAAGGCCACT CGTCAGTACA AGAATCGTAA AGAAACTGGG AATGGTTCAA	2160
CTTCTTGGAC TCCTCCAGGT TGGCATCAGG TCAAGAATCT AAAGGGCTCT TATACCCATG	2220
CAGTCGATAG AGGTCAATTG TTAGGCTATG CCTAATCGG TGGTTTGGAT GGTTTTGATG	2280
CCTCAACAAG CAATCCTAAA AACATTGCTG TTCAGACAGC CTGGGCAAAT CAGGCACAAG	2340
CCGAGTATTC GACTGGTCAA AACTACTATG AAAGCAAGGT GCGTAAAGCC TTGGACCAA	2400
ACAAGCGTGT CCGTTACCGT GTAACCCCTT ACTACGCTTC AAACGAGGAT TTAGTTCCT	2460
CAGCTTCACA GATTGAAGCC AAGTCTTCGG ATGGAGAATT GGAATTCAAT GTTCTAGTTC	2520
CCAATGTTCA AAAGGGACTT CAACTGGATT ACCGAAGTGG AGAAGTAACT GTAAGTCACT	2580
AAAAGATACG CCTACACTCC TATGTCACTT ATGGATGTAG GAGTTCTTTT TACTAGTTTA	2640
AGCAGGACTA AGACAGGTAC TAAGACAAAA TAGCAACTTC TAAACTAAC TTCCAGTTTT	2700
GGGAGAGAGA TGAAGTTAC TTTGAGA	2727

(2) INFORMATION FOR SEQ ID NO: 102:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5717 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 102:

TTTTTTGTAG ATTTAAGTGG GGTGCAATTC CTA AAAAATA AAAACAATT TTTGAAAATT	60
ATGTTAGCAG GAATTGCTTC AAATTCGATT TTATCACTTA CAGGTTTACT TGTTTATTG	120
TTACATCGT ATAAATGCT TGGACTCTTA TTTTATCA TTAACCTAGG TATGATTTT	180
ATTAATCAA TTCCTTTTT TCAGTATGAT AGTGGTATTA TTTAAGATA CTTGAATCT	240
AACAATAATA ACTTGAAATT TCAATATATA GTTCAACTT TAATAGCATT TGTTATTATT	300
TATTTTCCTT TGAGTCAACT ATTACAGTTT TTGACACCCA ATATTATTGT TCGTAGTATA	360
GGAGGGGTGG TTGTTCTAT ACTGCTTCT ATATTATATA TGATAGGAAG GACGAAATAT	420
GTCTACGTA AATAGTTATG TTTTGCTTA TAAAAAGAA GGTATAATGT ATTTACGTGG	480
TCGGAGTATG CGGGAATAG CTATAGAACC TCAATTTTCG CAAGAATTA TCAACGATCT	540
ATTTAATAGT TGAAGGAAC TATTAGAGAT AGAAGAAGTA TTAGGCAGTA AACTAACATT	600
TGAACATAA ATGAACAAAT TTTAATTCG GATGAGATAG ATATTGATAG TAGATATTCT	660
AGAACTAAAG GTTACTATTG GTTATTTTAT AATGAAGAGT ATAATAAAAT ACAGAATAAA	720
ACAGTATTAG TATTAGGAGC AGGAGTCTTA GGATGTTATA TATCTCTAAG TCTAAGTATG	780
TATGGAGTGA GGAACTTAT TGTCGCTGAT TACGATATAA TAGAACCATC AAATTTAAAT	840
AGGCAAAATC TTTATACAGA GTCGGATGTT GGTAAGGAGA AGATTAATGT TCTTCTGAA	900
AAAATACACA AGTATAATTC AGATGTTTCAG GTAGTACCTA TTTCTATTAA AGTTTCTTCA	960
GTAGAAGAAT TAGAAAAAT TGTTGCGGAA TATGGGAGTA TAGATTTTAT CGTTAAAGCA	1020
ATTGATACGC CCATTGATAT TATAAAAATT GTCAATCAAT TTGCTGTATC GCATAAGATA	1080
TCCTACATAT CAGGAGGGTT TAATGGATGC TATCTTATTA TTGATAATAT ATATATCCCT	1140
ACCATCGGTT CTGCTTTGG TTGTCGGAAT ATAAACAAAG ATATAAATAA GTACACTTTA	1200
TCTGATAAGA CAAAGTGGCC GACTACACCA GAGATGCCTG CTATTTTGGG AGGATAATG	1260
ACTAATTTAA TAATTAAAT ATTTCTGGGA TGTATAATG AAATCCTAAT AGATAACGCT	1320
TACGTTTATA ATATGAGAAA TCATGCTCTA AGTCAAGAAA AATATGTTCT GGAAAACGGA	1380
GAATGTCCAA TTTGTAAAAA AATAATAAAG TGAAAGATAA CAATATTAGA GCGAAAACAT	1440
TTATTCGTTT AGTTTGTTTT TGCTTATTAT CAGGAGGAGT AGCTTTTTTA TCTGCTATTG	1500
GGCAGTTCAC TGTATAGAA ACACAATTAA TAGTATTGTT CTGGGTATT ATTTTGCTA	1560
TATATTATGC TTAATACAAT AAAATATTC AACATCATT GGAAATATA GTATGGCTTT	1620

768

TTTCATCGTT TGAGATTTTA TTTTGCCTG TTAATTTTAG AACATTTATT CAGTTACCAG	1680
TGGATATTTT TATTGGTATG ATAATATTTT TAATGCTGTG GATATTTATT ATGTTAGGTA	1740
TAGTGTGTCT TAGTTATTAT ATAACTTTAT TATTAGCAA GGAGGCTTAG TATGTTTAAA	1800
AAAAAGGTA TAATGAGCAT TTGCATATAT ATAATTATTT TATACTGCTT GAGAATGTAT	1860
CGTATTATCA ATAATATTGA AACAATCTTG CTAACGGTTA TATGCTTAAT GTTATTGTTT	1920
TTTTTAAGAC GTTTATTTGA TAAAGATAAG TAAATAGATG TTAAGTAAAA ATGTAGAATA	1980
TAAAGGAGGT GCAATGAGTA TGATTGAAGT TAGCCATTTA TCAAAAAGTT TTGGTGATAA	2040
AATAGCTTTA AATAATATAA GCTTCACTGT TAAAGAAGGT TAGATTTTGT GATTTTGTAGA	2100
ACCATCTGGT TCTGGAAAAG CCACAACGAT TAATATTCTG ACTGGGCAGT TCCTTGCCGA	2160
TAAAGGACAA TCTATTATTT TGGGACAAAA ATCTCAAAAT TTAACAAGCG GTGAATTAAA	2220
GAGAATTGGA TTGGTTAGCG ATACAAGTGG ATTTTATGAG AAAATGTCTC TGTATAACAA	2280
TCTTCTTTTT TATAGTAAAT TTTATAATAT TAGTAAATCA CGTGTGATA ATTTGTAAA	2340
GCGAGTAGGA TTATATGATA GTCGCAAGAT GGTAGCAGGA AAATTATCCA CTGGAATGAG	2400
GCAACGAATG CTTTTCAGAC GAGCTCTTAT CAACAACCCC GCTGTACTCT TTCTGGATGA	2460
ACCGACCTCA GGTCTAGATC CCACAACCTC TCGAACAATT CATGAGTTAA TTTTAGAATT	2520
GAAAACAGCA GGGACAACGA TTTTCTAAC GACTCATGAT ATGAATGAAG CAACTCTTTT	2580
ATGTGATTAT GTTGCCTTAT TAAATAAAGG GAAATTAGTT GAGCAAGGAG CTCCTTCTGA	2640
ACTCATTCAA AGATATAATA AAGATAAAAA GATTAAGGTT ACAGATTATA ATGGGAATCA	2700
GATAACTTTT GATTTTACAT CACTAGAACA GGTATCTCAG ACTGATCTGG AAAATATTTT	2760
TTCAATTCAT TCATGTGAGC CTACTTTAGA AGATATTTT ATCACATTAA CAGGAGGAAA	2820
GCTAAATGCT TAAACGGTTT CTGGCTTTGG TATGGTTGCG TTGTCAAATC ATCCTTTCCA	2880
ATAAGAGTAT TTTATTGCAA GTTTTAGTGC CTTTTCCTT CACATATTTT TATAAATATC	2940
TTATGGAAC ACAGGGAAG GTCAACGATC AACAGGCATT AGTTCTTTTG ATGATGTGTT	3000
TACCTTTTTC TTTTCTTTG GCTGTTGGAA GTCCTATAAC TATTATCTTG TCTGAAGAAA	3060
AAGAAAAGTA CAATTACAA ACTCTTCTGT TGAGTGGTGT TAAAGGCTCC GAATACATTT	3120
TATCAACTAT GTTCTTCTCT TTTTGTCTAA CTTTGTGAT TATGGGAAC ACTCCTCTTA	3180
TTTTAGGAGT TACAATTGTA CATACTTTTA ATTATATTAC AATCGTCTT CTAACCTCTT	3240
TATCCATCAT TTTATTCTAT TTATTGATAG GTTTAACCGC GAAGAGCCAA GTAGTAGCTC	3300
AGGTTATCAG TCTTCCTGCT ATGATTTTAG TTGCTTCTT ACCGATGCTA TCTGGTTTGG	3360
ATAAGACAGT TGCGAAGATA ACAGATTATA GTTTTATGGG ACTATTTACT AAGTTTTTCA	3420

769

CAAAATGGGA GGAATTTTCA TGGAATAAAA CTCTAATTCC TAATCTAACA CTACTTATTT	3480
GGATTGTTCT TCTATTAAGT TTAATTACGA TAACTATTAG GAAAAAGAAA ATTTCTTAAT	3540
TGAGTTATTT TAATGATTAT AAACACAAGT GGAAGGAAA AAATGAACTG ATCTTTTGA	3600
CAGCAATTCT ACAGAATAGT CTTATTGCTA TATTTTGATT TGAGTGTACG AAAAAAGAAA	3660
AATAACAATA GTGCTCATA TAATTGCAGA AGTTTGGGT GATAAGATAA CTGATAAATT	3720
GCAATAAAAA ATGCAACATT TTAAATCTC CTCTATAAGT GCTTCAAAAA GTGCTTCAAA	3780
ACCTGTCTTG TAATCCAAGT ATTTTGGGG ACGGTGATTA ATAAGCTAGC AAAGCATCAT	3840
TAAGGATTTT TTCGGTAATT GTTGCCAAAT CGGTTAAGA AAATACTCAC GAAGAAGTCC	3900
ATTCGCATTC TCATTACTTC CCCTTTGCCA AGATGAATAG GCATCCGCAA AATAAACAG	3960
AATTTCCATT TGTTCAAATA AAGGGTAACA AGCAAACCTCT TTTCTCTGT CCGAAGTGAA	4020
AGTCTTTAAC TATTCTTTTG GAAAGAGTCT TGTGAGGTGT TCAATAGCAG TCAACATGGA	4080
TTTAGCTGTT TTTACTTGAC AAGTGCTAGT AGAAATAATA GAATAGTAAA AAACCTTTAA	4140
AGCAGTCCAG AGAGGCAGCT AAGGTTAGAC GGTGAAAGGG TGGAGACTAC CCATTTTCG	4200
TGGAACCTTG CTGTTGGCAG GTTCTTTTTT TCGTGGCTTC TGTGAGCCAG ACTCTCTCAC	4260
TAGTAAAGGT AAAAGGAGAA ACCTATGCGA GAACATCGTC CAATCATTCG TCTTGATTTT	4320
CCTAGTTTTC AGGCGGTCAA GGAATTTTTC GCTCTTTTCC CAGCAGAAGA AAGCCTTTAT	4380
CTCAAGGTAG GGATGGAGCT TTATTACGCA GCGGGGCTG AGATTGTGTC CTACTTAAAA	4440
GGTTTGGGTC ATAGTGCTT TTTGGATCTC AAACCTCATG ACATTCCTAA TACAGTCAAG	4500
TCAGCCATGA AGATCTTGTC TCAGCTTGGT GTCGATATGA CTAATGTCCA TGCGGCTGGT	4560
GGTGTAGAGA TGATGAAGGC GCGCGTGAA GGTCTTGGGA GTCAAGCCAA ATTGATCGCT	4620
GTAACCTCAG TCACATCAAC GTCAGAAGCT CAGATGCAGG AGTTTCAAAA TATCCAAACC	4680
AGTCTGCAAG AGTCTGTGAT TCACTATGCC AAGAAGACAG CTGAAGCTGG CTTGGATGGT	4740
GTTGTTTGCT CGGCTCAGGA AGTACAAGTC ATCAAGCAGG CTACCAATCC AGATTTTATC	4800
TGTCTGACAC CAGGGATTTC TCCAGCTGGT GTTGCAAGTG GAGATCAAAA ACGAGTCATG	4860
ACACCTGCTG ATGCCTATCA AATCGGCAGT GACTATATCG TAGTGGGACG TCCCATTACC	4920
CAAGCTGAGG ATCCTGTTGC AGCTTATCAT GCCATCAAGG ATGAATGGAC ACAGGACTGG	4980
AATTAAAGAA CTAGATTAGA AAAATAAAAG GAGAATACCA TGACACTTGC TAAAGATATC	5040
GCTAGCCACC TCTTGAAAAT CCAAGCCGTT TACCTCAAAC CAGAGGAACC CTTCACTTGG	5100
GCATCTGGTA TCAAGTCACC GATTTACACT GATAATCGTG TGACACTAGC CTATCCAGAA	5160

770

ACTCGTACCC TAATTGAAAA TGGTTTGTG GAAGCTATCA AAGAAGCCTT TCCTGAAGTA	5220
GAAGTGATTG CAGGAAGTGC AACAGCAGGG ATTCCACACG GAGCCATTAT TGCTGATAAG	5280
ATGGAAGTGC CTTTGCCTA CATCCGTAGT AAACCAAAG ACCACGGAGC TGGTAATCAA	5340
ATCGAAGGTC GCGTAGCTCA AGGTCAAAAA ATGGTAGTGC TTGAAGACCT TATTTCAACG	5400
GGTGGTTTCA TTTCTGAAGC TGTAGCAGCA GCCAAGCGAG AAGGAGCAGA TGTACTTGGA	5460
GTTGTAGCGA TTTTCAGCTA CCAATTGCCA AAAGCAGATA AGAAGTTTGC AGATGCTGGT	5520
GTTAAAGTTG TGACGCTTTC AACTATAGC GAGCTTATCC ATCTAGCCCA AGAAGAAGGT	5580
TACATCACGC CAGAGGGCCT TGATCTTCTA AAACGCTTTA AAGAAGACCA AGAAAATTGG	5640
CAAGAAGGTT AGGTCAGTAA GATAAAGAGA GACGAGGCTA CCGAGTCTCT TTTACCATTT	5700
TATTTAAAAAT ATGACAG	5717

(2) INFORMATION FOR SEQ ID NO: 103:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5558 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 103:

CCTGGACTTT CTAAATGAA ATCTGCGAC CTGGATCAAG CCCTTCATGA GCATTTTTC	60
GAAGAAGAAT TAGCTGGTCA CTTTCATGTC CTTCTATGGA CTTTTTTTAC AATGGCATTG	120
CTATCACACC CAATACCTAT CTAAGCGCCT GGTTCGTAAT CTTTATTGCA GCTCTTCCTC	180
TAAATTTCCCT AATGTGTGAA CCAATTGCCC GTTTTATACT AAGTTCTTTT CAGAAACCAT	240
TTACTGGGGA AGAAGTTGAA GATTTTCAAG ATGATGATGA AATCCCAACT ATTATCTAAG	300
CCAGTTCTGT AAATACTAA TATTTGAAAT CCACTTCCTT TTAGGGTGCA ATGGTTATAA	360
ATGAATTTT GAGAGGATCA GAATGAAAA ACTAGCAACC CTTCTTTTAC TGCTACTGT	420
AGCCCTAGCT GGGTGTAGCA GCGTCCAACG CAGTCTGCGT GGTGATGATT ATGTTGATTC	480
CAGTCTTGCT GCTGAAGAAA GTTCCAAAGT AGCTGCCCAA TCTGCCAAGG AGTTAAACGA	540
TGCTTTAACA AACGAAAACG CCAATTTCCC ACAACTATCT AAGGAAGTTG CTGAAGATGA	600
AGCCGAAGTG ATTTTCCACA CAAGCCAAGG TGATATTCGC ATTAACTCT TCCCTAACT	660
CGCTCCTCTA GCGGTTGAAA ATTTCTCTAC TCACGCCAAA GAAGGCTACT ATAACGGTAT	720
TACCTTCCAC CGTGTCATCG ATGGCTTTAT GTTCCAAACT GGAGATCCAA AAGGGGACGG	780
TACAGTGGT CAGTCCATCT GGCATGACAA GGATAAGACT AAAGACAAAG GAACTGGTTT	840

771

CAAGAACGAG ATTACTCCTT ATTTGTATAA CATCCGTGGT GCTCTTGCTA TGGCTAATAC	900
TGGTCAACCA AACACCAATG GCAGCCAGTT CTTTCATCAAC CAAAACCTA CAGATACCTC	960
TTCTAAACTC CCTACAAGCA AGTATCCACA GAAAATTATT GAAGCCTACA AAGAAGGTGG	1020
AAACCCTAGT CTAGATGGCA AACACCCAGT CTTTGGTCAA GTGATTGACG GTATGGATGT	1080
TGTGGATAAG ATTGCTAAGG CCGAAAAAGA TGAAAAAGAC AAGCCAACCTA CTGCTATCAC	1140
AATCGACAGC ATCGAAGTGG TGAAAGACTA CGATTTTAAA TCTTAAAAAC CAAAAAATA	1200
CAGTATCCAC ATTCGGTACT GTATTTCTTT TACTCTCATT CTTAAGTTAA ATTATTAAAA	1260
TCCCATATTT GGTCTATCCA GCCTTCATAA AAGTCTGGCT CGTGGCAGAC CATAAGGATA	1320
GATCCCTAT ATTCTTTGAG AGCGCGTTG AGCTCATCCT TTGCATCCAC ATCCAAATGG	1380
TTGGTCGGCT CGTCCAGCAC TAAACGTTG TTTTCACGAT TCATCAAGAG ACAGAAACGA	1440
ACCTTGCTT GCTCTCCCC TGATAAFACT TGAATCTGGC TTCAATATG TTTGGTTGTC	1500
AAACCACAAC GGGCAAGGGC TGCACGGACT TCTGCTTGAT TAAGGGCAGG AAAGGCATTC	1560
CAGACAGCTT CAAGAGGAGT TTGGCGATTA CCGCCTTCTA CTTCTGCTC AAAATAACCA	1620
AGTTCTAAAT AATCTCCAGC CTCCACTTCC CCAGCGATTG GCGAGATAAT GCCCAAGAGA	1680
CTCTTCAAGA GAGTTGTTTT TCCAATACCA TTAGCACCA TAATCGCAAC CTTTGTGATTG	1740
CGTTCGAAGG TAAGATTTAA AGGCTTAGTA AGAGGACGGT CGTAACCAAT TTGCAAGTTC	1800
TTGGCTTGGA AGATAAAGCG CCCTGGTGTA CGAGCTGGT TGAAATCAA GGATGGTTTT	1860
GGTTTCTCAC TTTGGAGTTC GATAATATCC ATCTTATCCA ATTTCTTTTG ACGAGACATA	1920
GCCATATTAC GAGTTGCAAC ACGGGCTTTA TTACGAGCCA CAAAGTCCTT GAGGTCTGCA	1980
ATCTCTTTCT GCTGGCGTTC GTAGGCTGCC TCTAGCTGAG ATTTCTTCAT AGCATAAACT	2040
TCTTGGAAC TGTAGTAGTC ACCAGAGTAA CGCGTCAGCT GTTGATTTC CACATGATAG	2100
ACAATATTAA TAACGTCATT GAGGAATGGA ATATCGTGCG AAATGAGAAC AAAGGCATTC	2160
TCATAGTTTT GGAGATAGCG CTTGAGCCAA TCAATATGCT CAGCATCCAA GTAGTTGGTC	2220
GGCTCGTCCA ACAGCAAGAT ATCAGGCTTT TCAAGGAGAA GTTTTGCCAA AAGCACCTTG	2280
GTCTTTTGCC CACCTGACAA AGAAGTTACA TCCGTATCCA TGCCAAAGTC CATAACACCA	2340
AGAGCACGCG CTAFTTCGTC AATCTTAGCA TCCAAGGTAT AGAAATCACG ACTCTCCAGA	2400
CGGTCTTGAA GTTCTCCTAC TTCTTCCATG AGAGCATCAA CATCCGCGCC GTCTTCAGCC	2460
ATTTTCATAT AGAGGTCATT GATACGAGCT TCAGCTTTGA AAAGCTCATC AAAAGCCGTA	2520
CGGAGAACAT CACGCACCGA CTGTCTTTCA GCAAGGACAG AGTGCTGATC CAAGTAACCA	2580

772

GCCGTCACAT ATTTGGACCA CTCAACCTTT CCTTCATCTG GCAGCATTTT ACCAGTCACG	2640
ATACTCATAA AGGTTGATTT TCCTTCACCA TTGGCACCGA CCAGGCCGAT ATGTTCTCCC	2700
TTGAGGAGAC GGAAGGACAC ATCTTCAAAA ATTGCACGGT CACCAAAACC GTGACTCAGA	2760
TTTTTAACCT CTAAATACT CATTTTAATT CCTTACCTTG TTTTATGTA ATCGTTTATA	2820
AAGGAGCCAA GCCAGATAGC CACCCAAAGT GTTGGTCCAC AAATCATCAA TCTCAAAGAC	2880
GCGATTGAAA TCAAAGAAA AGTCCAAGAT TAATTGCGTA CACTCGATTG CAAGACTCAC	2940
AAGAAAATA AAAAGAAGGA CCTTTTGT TTTCCGCAA TTTGGAAATA GATAAAGGAG	3000
TTGGAATC AGAGGAAAA ACAAGAAGAC ATTGAGGATA TTTGTAAAA AAATCCAACA	3060
TAATTGTCCA ATGCTACTCA CTTCGCCAG TTTCCAGAGA GAATTGAAAG GAGTCAAAAG	3120
AAAAACCAG CGTCCAAGAT GCTGAATACC TGGAGTCCC ACTCCACGG TAGATTGTTC	3180
TTGAGGAGTA AAGCAAAAC AGACAATGCA AATGCTATAG AAAATGACTC CCCAGACCAA	3240
AATATGATTA TAAGTCTTCT TCATCATTA GGATTTACCG CTGCGACTGC CTTCTGGCGG	3300
TCACGTTTCA TTGTGTTAGA GCGCAATTGT CCACAAGCTG CGTCAATATC TGTACCATGC	3360
CTTGACGAA CCACACAGTT GACCCCTTTT TTCTTAAGCG TATCATAGAA AGCCAACACG	3420
CACTCTTTGG GACTACGGCT ATATTGGTCA TGCTCACTAA CTGGGTATA AGGAATCAAG	3480
TTTACATAAG ACAATTCTT GATGTTCTG AGCAATTCAG TCAATTCCAA GGCTTGTCT	3540
ACACCGTCGT TGAATTCATT AAGCATGATA TATTCAAAG TTACACGACG GTTGTGTGTC	3600
TCAATGTAGT ATTCAATAGC AGCAAAGAGT TTTCAATCG GAAAGGCACG GTTAATCTTC	3660
ATGATACTTG AACGAAGTTC ATTGTTAGGT GCGTGAAGAG ACACGGCAAG ATTGACCTGA	3720
ACCCCTTCAT CAGCAAAGTC ACGAATTTTA TGAGCCAAAC CTGAGGTTGA AACCGTGATG	3780
TGACGAGCAC CGATAGCCAT TCCTTTATCA TCATTGATAG TACGAAAGAA ATTCAAGACA	3840
TTGTTGTAAT TATCAAAGG CTCACCGATT CCCATGACAA CGATATGGCT GATGCGTTCA	3900
TCCTGACCAC GCTCATCAA GTATTCTGA ACCAGCATGA TTTGCGCTAC GATTTCACCG	3960
TTATTGAGGT CACGTGCTT CTTAATCAA CCAGAGGCAC AGAAGGTACA ACCGATATTA	4020
CAGCCGACCT GAGTGGTCAC ACAGACAGAT AAACCATAGT GTTGACGCAT GAGTACAGTC	4080
TCAATTAAACA TACCGTCGG CAATTCAAAG AGATATTGA CTGTACCATC AGCAGACTCT	4140
TGCACAATAC GTTGTTCAA GGGATTGACC ACAAAGTGGT CATTGAGCTT AGCAATCAA	4200
TCCTTGAAA GGTGGTCAT TTCTTCAAT GACTGCACAC GTTTACGGTA GAGCCATTCC	4260
CAGATTGAT CTGCACGGAA TTTCTTTCT CCCTGCTCCA ATACCCATTC CTGCATGGTT	4320
TGATGTACCA AACTATGAAT TGAGGTTTC ATTTCTTCTC CTTATTCTCT ACTCACTTCT	4380

773

GACGAATGAC AAAATGACGT TGTCCCTTGT CGTCTTCTG ACGACGTCTA TTTTCTTAT	4440
CTGCATTGCA CTTTCGTTTA GTTGAGTCG GTTCTTTCC TTTCTAGAA GGTGTTTCTT	4500
CTTCCGCTCTT ACGCATTTTC TTGTCAAATG ATGCTCGCTT AGGGGCTTCA TTTTCTAAGA	4560
CAAAATAGGC ACAACCATAA CTACAATACT CTAAAAGGTA GTCTTGTAAG CGACTGATTT	4620
TTTCAAGTTT TTCTTCTGTT CGGTCATCCT TGTAAAAACC TCGTAGGCGA AGCTGTTTCGT	4680
TGCTCCAGTC CCCCACGATA TAATCAAAC TGGTTAATAC TTCTGAAAA CGCTGATTAA	4740
AAGTCGTAC ATCAAAGGCA TCCTTGATAT TTTCAACCA GAAAAAGCT ATCCCTTCCG	4800
TTTCGACCTT GTCCCGTGT AAATGGAAC CCGGACCAGG AAAGTTGTTA TAGTTGTATA	4860
ATTCAGGTGC AATTCTTTT CGCATAGATA TCCTTTTTTTC ACGATTACTT AATACTTTAT	4920
TCTACCATAA TTTCTAGCAG TTAGCACGTT TCTCATAAAA ATGAAAAAG TCTGACGATT	4980
TTGTGAGACC AGAATCTTAT AACCTAAAA GAGAAGAACA ATTCTTCCCT CCAACTATCA	5040
TTATTTAGCA GCTGCGTACA ATTCATCTAC TTTATTCAG TTGATTACTG AAAAGAAAGC	5100
TTTGATGTAG TCAGGACGCA CGTTGCGGTA TTTCACGTAG TAAGCATGTT CCCAACGTC	5160
CAAGCCCAAG ATTGGTTTTT TACCTTCTGA GATTGGTGTG TCTTGGTTTG CTGTTGAAGT	5220
CACCTCAAGT TTCCCTTCTT TGTGACAAC CAACCATGCC CAACCTGAAC CAAAACGAGT	5280
TGTTGCTGCT GCAGTGAAGG CTGCTTGGA TTCTTCAAAT GAACCAAATG TTGCATCGAT	5340
TGCTGCTGCC AGTTCTGCTG AAGGAGCTGT TTTCTCGGA GTCATCAATT CCCAGAAAAG	5400
AGCGTGCTC AAGTGCTCCG CACCATTGTT GATAAGTGCT TGACGGATAT CAGCTGGGAT	5460
AGATTCTACA TCAGCAAGCA AGGCTTCAAG GTCTTCACCG ATTTTCAGGGT GTTTTCTAA	5520
AGCTGCATTG GCATTGTTGA CATAAGTTTG ATGGTGTT	5558

(2) INFORMATION FOR SEQ ID NO: 104:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6735 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 104:

GGAATTGTAA ATATCATATT GTTTTGCAC CCAAATATCG TCGTCAAATC ATTTATGGCA	60
GATACAAAGC TAGTATCGGA AGAATCATAC GTGACTTATG TGAGCGTAAG GGTGTAATAA	120
TCCATGAAGC GAATGCTTGT TCAGACCATA TTCACATGCT TATCAGTATT CCTCCGAAAC	180

774

TTAGTGTTC	GTCTTTATG	GGCTATTTAA	AGGGCAAGAG	CAGTTTGATG	ATTTTGTATA	240
AGCATGCGAA	TTTAAATAC	AAATATGGCA	ATCGCAAGTT	TTGGTGTAGA	GGCTATTATG	300
TAGATACGGT	AGGCCGTAAT	CAGAAAAGTGA	TAGCTGAATA	TATTCAGAAT	CAATTACAAG	360
AAGACAGAGT	AGCAGACCAG	CTCACGTTAT	TCGAGTCAGT	AGATCCGTTT	ACTGGCGAAA	420
TAAATAAGAG	GAAGTAACTA	AGGTGCTTTA	GCACCTGCTC	GGGAAAGTGG	TGCGCGAGGA	480
AGCTATTTCG	GTGGGCCTTT	GGCCCTGGCC	GGTAGAAGCG	GCTTATAGCC	GCAGAACAAA	540
CCACCAGTTC	AACTGGTGG	TTTTGATTTA	AAAAACTTGA	TACATAAAAA	TAAAAGTCTA	600
TATAAAGGAT	GGTAAATTC	CTGTTGTCCG	ATTTGGACAA	TATCCTAAAT	AGTTACAATA	660
TATGGTCTAT	ACTTTTCTT	AGGAGAAAGC	TAGATGTACA	GACGTTTGAG	AGATTGAGG	720
GAGGATCATG	ATCTGCCCA	AAAGCAAATA	GCTACAATAC	TTTCGTTTAC	AAATTCAGCT	780
TATGCCAAAA	TTGAACGGG	TGAGCATGCG	TTGACGGCTG	ATGTATTGGT	TAAACTCTCA	840
GATTTCTATG	ACGTCAGTAC	AGACTATTTA	TTGGGATTAA	CTGATTTTCC	TGATAAAATT	900
CGCTTTAGAA	AATAATCTCC	TCAATTTTAT	AGAGTTTGAA	AATGAGTGAG	ATTTTTTATT	960
TGCCCTTTGA	CAACTGAATA	GCCTAAAATG	GTACTTTCCT	CATTTGTGGA	GCAAATTTGA	1020
ATGGCTCGCC	ATGATAAGAG	CGATTTTAAA	ATCATCAATA	AAATAGAGCG	ATACTTTATA	1080
TGCCATGATA	CAATGATAT	ACAATGATAC	TTCTGACCGT	TCAGCCTGCC	AACGTAAAAA	1140
AGCAGCAAGT	GAAATCTTA	TGATGACTTC	ATCAGTCATG	CCACGTTGAA	TGTGTGAGTT	1200
TGTTAGATAA	ACGCAATTAA	TCCTCAAAAG	GTTCCCGGAA	CCTTTTGAGT	TCTACAGACG	1260
CATCACGTGG	AGTGTGTAAG	CTTGTGCTA	AAAGCGTAAA	AACCTTGGA	CGAAAGGAAT	1320
AATAGACTTT	CTGCGAAACA	AAAATATAAT	ACAATAAAAC	TATGAATGAT	GAAGCAAGTA	1380
AACAATTGAG	CGATAGCCGT	TTCAAGATCC	TTGTAGGTGT	TCAGCGCACG	ACTTTTGAAG	1440
AGATGTTAGC	TGTGTTAAAA	ACAGCTTATC	AACGTAAACG	CGCAAAAGGT	GGACGAAAAA	1500
GCAAATTAAG	CCTAGACGAT	CTCCTTATGG	TAATATTCA	ATACATGCGA	GAATAGAGCA	1560
CTTATGAACA	AATTGCGGCT	GATTTTGGCA	TTACGAAAAG	CAACTTAATC	CGTCGGAGTC	1620
AATGGGTGTA	AGCAACTCTT	ATTCAAAATG	GTTTACGAT	TTCAAATCTT	GCCTTAATTC	1680
TGTAATAACA	GTAATTTTCG	AAGGATTGTA	AGGTAAGAGT	TTTTTTCTTT	CTGAAAAAAT	1740
GGTATAATAG	CAATCAAAAC	TAGAAAAATA	AACGGAATTT	GGAACAGATT	TGTCTGTATC	1800
CTAGTAGAGT	GGTGATACTA	TGAAGATTAG	TAAGAGGCAC	TTATTAAATT	ATTCCATCTT	1860
GATTCCTTAC	TTGCTTTTAT	CTATTTTGGG	CTTGATTGTG	GTCTATTCTA	CCACCAGTGC	1920
TATTTTAATT	GAAGAAGGCA	AGAGCGCCTT	GCAGTTGGTT	CGAAACCAAG	GAATCTTTTG	1980

GATTGTTAGT TTGATACTGA TTGCCTTAAT TTATAAATTG AGACTAGATT TTTTGAGAAA	2040
TGAGCGACTA ATCATTTTAG TTATATTAAT AGAAATGCTT TTATTGTTCT TGGCTCGTTT	2100
TATTGGTATT TCCGTAAACG GGGCATAACG TTGGATTTCG GTTGCAGGAA TAACTATTCA	2160
GCCAGCTGAG TACTTAAAA TCATTATTAT TTGGTATTTA GCTCACCGAT TCTCCAAACA	2220
GCAAGAAGAA ATAGCTACTT ATGATTTTCA AGTTTGGACT CAAAATCAAT GGCTTCCCCG	2280
TGCTTTTAAT GATTGGCGAT TCGTTCTCCT AGTTCTGATT GGAAGTTTGG GAATTTTCCC	2340
TGATTTAGGA AATGCGACTA TTTTAGTCTT GGTTCCTTG ATTATGTATA CAGTTAGTGG	2400
AATCGCTTAT CGCTGGTTTT CAACCATTCT GCGCTCGTA TCTGCCGCTT CTGTCTTGT	2460
CTTGACCACT ATCAGCCTAA TCGGTGTTGA GACCTTTTCA AAAATTCCAG TATTCGGCTA	2520
TGTAGCCAAG CGCTTTAGTG CCTTTTAA TCCTTTGCC GATCGTGCTG ATGCAGGTCA	2580
CCAGTTAGCT AATTCTTATT TTGCCATGGT CAATGGCGGT TGGTTGGTC TAGGTCTTGG	2640
AAACTCGATT GAAAAACGAG GTTATTTGCC AGAAGCTCAT ACAGACTTTG TCTTTCTAT	2700
CGTGATTGAA GAATTTGGCT TTGTTGGTGC CAGTCTTATT TTAGCTCTCT TGTTTTTCAT	2760
GATTTTGGCG ATTATCTTGG TCGGTATCCG AGCGGAGAAT CCTTCAATG CCATGGTTGC	2820
ACTCGGTGTC GGAGGGATGA TGTGGTTCA GGTATTTGTC AATATCGGAG GGATTTCCGG	2880
CTTGATTCCA TCTACAGGAG TGACTTTCCC CTCTTATCC CAGGGTGAA ATAGTCTTCT	2940
AGTCTTATCA GTGGCAGTAG CCTTGTCTT AAATATTGAT GCCAGTGAAA AACGCGCTAA	3000
ATTGTACCGA GAATTGGAAA ATCAACCAAT GAACCTTCTG TTGAAGTAGG ATAAAGAAAG	3060
GATAGTTTAT GTCTCTTCAA AAATTAGAAA ATTATAGTAA TAAAAGTGT GTGCAAGAAG	3120
AAGTCTTGAT TCTAACAGAA TTAAGGAAG ATATTACTAA AAATATGCTT GCCCAGAGA	3180
CCTTTGAAAA AATAATACAG TTGAAAGAAT TATCAACGCA GGAAGATTAT CAAGGTCTAA	3240
ACCGTCTAGT GACTAGCTTA TCAAATGATG AAATGGTCTA TATTCACGC TATTTCTCTA	3300
TCTTGCCTCT TTTGATTAAT ATTCAGAGG ATGTGGATT AGCTTATGAA ATCAATCATC	3360
AAAATAATAT TGATCAGGAC TATTTAGGTA AATTATCTAC AACGATTAAA TTGGTAGCAG	3420
AAAAGGAAAA TGCCGTTGAG ATCCTAGAAC ACTTGAATGT TGTCCCTGTT TTGACAGCCC	3480
ATCCAACACA AGTGCAACGC AAAAGTATGT TGGATTAAAC AAATCATATT CATAGTCTTT	3540
TGCGTAAATA CCGTGATGTT AAGTTGGGGT TGATCAATAA AGATAAATGG TACAATGATT	3600
TGCGTCGTTA CATCGAAAT ATCATGCAGA CAGACATGAT TCGTGAGAAA AAATTAAAAG	3660
TGACTAACGA AATCACGAAT GCTATGGAAT ATTATAACAG CTCCTTTTGG AAAGCTGTAC	3720

776

CTCATTTGAC GACGGAGTAT AAGCGCTTAG CGCAAGCGCA TGGTCTGAAT TAAAAACAGG	3780
CTAAACCAAT CACCATGGGT ATGTGGATAG GTGGTGACCG TGATGGAAAT CCATTTGTTA	3840
CAGCAAAGAC CTTGAAGCAG TCTGCACTCA CTCAGTGTGA AGTCATCATG AACTACTATG	3900
ATAAAAAAGAT TTACCAACTT TATCGTGAAT TTTCTCTTTC AACTAGCATT GTCAACGTCA	3960
GCAAGCAAGT CAGAGAAATG GCTCGTCAAT CCAAGGATAA CTCGATTTAC CGCGAAAAAG	4020
AGCTTTACCG TCGTGCCTTG TTTGATATTC AATCAAAAAT TCAGGCAACT AAAACCTATC	4080
TGATTGAGGA TGAAGAAGTT GGGACTCGTT ATGAAACCGC CAATGATTTC TACAAGGATT	4140
TGATTGCCAT TCGAGATTCT CTACTAGAAA ATAAGGGCGA GTCCTTGATT TCAGGTGATT	4200
TTGTGGAATT ATTGCAGGCA GTAGAGATAT TTGGTTTTTA CTTAGCATCA ATTGATATGC	4260
GACAAGACTC TAGCGTCTAT GAAGCCTGTG TGGCAGAACT CTTGAAATCA GCAGGAATTC	4320
ATTCTCGTTA TAGCGAGTTG AGCGAAGAAG AAAAGTGTGA CCTTCTCTTG AAAGAATTAG	4380
AAGAAGATCC CCGAATTCTT TCTGCGACTC ACGCAGAAAA ATCAGAATTA TTAGCAAAAG	4440
AATTAGCTAT TTTTAAGACG GCTCGTGTG TGAAAGATAA GPTGGGAGAT GATGTCATCC	4500
GTCAGACCAT CATTTACAT GCAACCAGCC TTTCTGATAT GCTAGAATTA GCTATTCTGT	4560
TAAAAGAAGT AGGACTGGTG GATACGGAAA GGGCGCGTGT TCAGATTGTT CCCCTTTTGT	4620
AAACAATTGA AGACTTGGAT CATTCAGAGG AAACAATGAG AAAATATCTT TCTCTTAGCC	4680
TTGCCAAAA ATGGATTGAC TCACGAAATA ACTACCAAGA AATCATGCTT GGCTACTCTG	4740
ACAGTAATAA AGATGGCGGT TACTTGTCAT CATGTTGGAC CCTCTACAAG GCTCAACAAC	4800
AATTGACTGC TATTGGAGAT GAATTGGCG TTAAGGTTAC CTTCTTCCAT GGTGCGGTG	4860
GTACTGTCCG TCGTGGTGGT GGGCCAACCT ATGAAGCCAT TACATCTCAA CCGCTCAAGT	4920
CTATCAAGGA TCGTATCCGC TTGACGGAGC AGGGTGAAGT AATTGGGAAT AAATACGGTA	4980
ACAAAGACGC CGCTTACTAT AACCTTGAAA TGCTAGTATC GGCAGCTATT AACCGTATGA	5040
TTACTCAGAA GAAGAGCGAT ACCAATACCC CAAATCGTTA TGAAACCATT ATGGATCAAG	5100
TAGTGGACCG TAGTTACGAT ATCTACCGTG ATTTGGTCTT TGGTAATGAG CATTTCTATG	5160
ATTATTTCTT CGAGTCAAGT CCAATCAAGG CTATTTCAG TTTTAATAT GGTCTCGTC	5220
CAGCCGCTCG TAAGACTATT ACTGAAATCG GTGGTTTGCG TGCCATCCCT TGGGTATTCT	5280
CATGGTCACA GAGTCGTGTT ATGTTCCCTG GATGGTACGG GGTGGTTCA AGCTTCAAGG	5340
AATTTATCAA TAAAAATCCA GAGAATATTG CTATCTTACG AGATATGTAC CAAAATTGGC	5400
CTTCTTCCA ATCGCTTCTT TCAAATGTTG ATATGGTTTT GTCAAAATCA AATATGAATA	5460
TTGCTTTTGA ATATGCTAAA CTTTGTGAAG ACGAGCAAGT TAAGGCCATC TATGAGACTA	5520

777

TTTAAATGA ATGGCAAGTT ACTAAGAACG TTATCTTGGC TATTGAAGGA CATGACGAAC	5580
TCTTAGCTGA CAATCCATAT CTAAGAGCTA GTCTGGATTA CCGTATGCCT TACTTTAATA	5640
TTCTCAACTA TATTCAGTTG GAGTTGATTA AACGCCAACG TCGTGGAGAA TTGTCCAGTG	5700
ATCAAGAACG ATTGATTTCAT ATCACCATCA ACGGAATTGC GACAGGATTG CGTAATTTCAG	5760
GTTGATAATT TTCAAGAGTG AATGCTAAAA GTGAATATCA AAAAAATTCT AATAGACTAT	5820
TGACAAGTAG TTTAAAAATG ATATAATTTA ACCATTTCAGA AAAGTAATCA TACAAACTTT	5880
TTAGAGAGTC TGTGGTAGCT GAAAACAGAT AAGTGGCAAT GATGAAAATT GGGCTGAATG	5940
CTATTTAGAA TTTGAAATTA TAAAAATTCG GTAAGCACAC CTTACAGTGC ATCTCGTTAT	6000
TGCGAGACTG AGCGATAGGG AAATCCCTTA TAATTGAGGT GGTACCGCGC ATCGACGTCC	6060
TCACACAAGT TTTTGTGTG AGGATTTTTT TGATGGAGGT TAGTATGGAA AGAAAACGAT	6120
GGCGTCGCTT GTTTAGATAA GTGAAATATG TTAAGGAAA TAAAAAGGAG AAACAGAATG	6180
AAAAATAAAC GTTTAATTGG AATTATTGCT GCATTAGCAG TCTTAGTAGC AGGAAGCTTG	6240
ATTTATTCTT CAATGAATAA ATCAGAAGCT CAGAATAATA AGGATGAGAA GAAAATAACC	6300
AAGATTGGTG TGCTTCAATT TGTGAGCCAT CCATCCCTTG ATTTGATTTA TAAAGGGATC	6360
CAAGATGGAC TTGCAGAAGA AGGATATAAA GATGATCAAG TTAATTTGA TTTTATGAAC	6420
TCAGAAGGTG ACCAAAGTAA GGTGCGACA ATGAGTAAAC AATTGGTTGC AAATGGGAAT	6480
GACCTTGTGG TTGGTATCGC AACACCAGCA GCCCAAGGGT TGGCTAGTGC AACAAAAGAC	6540
CTACCGTTA TCATGGCCGC TATTACAGAC CCAATTGGTG CTAACCTGGT TAAAGATTTG	6600
AAAAAACCAG GTGGCAACGT TACAGGGGTA TCTGACCACA ATCCAGCTCA ACAACAAGTT	6660
GAATCATCA AGGCTCTGAC ACCGAATGTG AAAACAATCG GAGCTCTTTA CTCAAGTAGC	6720
GAAGACAATT CAAAA	6735

(2) INFORMATION FOR SEQ ID NO: 105:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6516 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 105:

CTAGAGGATC CCAGCAGGTA AATTGGCTTC AGCTGGCAAA AAAGTTGCCC TCGTTGAACG	60
CAGCAAGGCT ATGTACGGTG GAACTTGTAT CAACATTGGT TGTATCCCAA CTAAACCTT	120

778

GCTAGTTGCT GCTGAAAAGG ACTTGTCTTT TGAAGAAGTC ATTGCTACTA AAAACACGAT	180
CACTGGTCGC CTCAACGGTA AAAACTATGC GACTGTTGCT GGTACAGGCG TAGATATCTT	240
TGATGCCGAA GCTCACTTCC TTTCAAATAA AGTCATCGAA ATCCAAGCTG GTGATGAAAA	300
GAAAGAACTG ACTGCTGAAA CAATCGTCAT CAACACTGGT GCTGTTTCAA ACGTCTTGCC	360
AATCCCTGGA CTTGCTACAA GCAAAAACAT CTTTGACTCA ACAGGTATCC AAAGCTTGGA	420
CAAATTACCT GAAAACTTG GAATCCTTGG TGGCGGAAAT ATCGGTCTTG AATTGCCGG	480
CCTTTACAAC AAACCTTGAA GCAAGGTCAC AGTCCTAGAT GCCTTGATA CATTCCCTACC	540
TCGTGCAGAA CCTTCCATCG CAGCTCTTGC TAAACAATAC ATGGAAGAAG ATGGCATTGA	600
ATTGCTTCAA AATATCCATA CTACTGAAAT CAAAAACGAT GGTGACCAAG TGCTTGTCTG	660
AACTGAAGAC GAAACTTACC GTTTCGACGC CCTTCTCTAC GCAACTGGAC GCAAACCAAA	720
TGTAGAACCA CTTCAACTTG AAAATACAGA TATTGAACCT ACTGAACGTG GTGCTATTAA	780
AGTAGACAAA CACTGTCAA CAAACGTTC TGGTGTCTTT GCAGTTGGAG ATGTCAACGG	840
TGGCCTTCAA TTTACTTACA TTTCACTTGA TGAATCCGT GTTGTCTTACA GCTACCTTGC	900
TGGAGATGGC AGCTATACAC TTGAAGACCG TCTCAATGTG CCAAATACTA TGTTTCATCAC	960
ACCTGCACTT TCACAAGTTG GTTTGACTGA AAGCCAAGCA GCTGATTTGA AACTTCCATA	1020
CGCTGTTAAG GAAATCCCCG TTGCAGCAAT GCCTCGTGGT CACGTAAATG GAGACCTTCG	1080
CGGTGCCTTC AAAGCTGTTG TCAATACTGA AACAAAAGAA ATTCTTGGAG CAAGCATCTT	1140
CTCAGAAGGT TCTCAAGAAA TCATCAACAT CATCACTGTT GCTATGGACA ACAAGATTCC	1200
TTACACTTAC TTCACAAAAC AAATCTTCAC TCACCCAACC TTGGCTGAGA ACTTGAATGA	1260
CTTGTTTTCG ATTTAAGTTG AGATTTAATC GTATCGAACA GCCCTCTTTG GGCTGTTTTT	1320
ACTTCTGCGG AATCTCAAAT CTGTCTTTCT CCTCTTTTAT GATATAATAG AACATGAAC	1380
TTAAAACTA CTTTGGGCTT TCTTGCTGGG CGTTCTTCCC ACTTCGTTTT AAGCCGCTT	1440
GGACGTGGAA GTACGCTCCC AGGGAAAGTC GCCCTTCAAT TTGATAAAGA TATTTTACAA	1500
AACCTAGCTA AGAACTACGA GATTGTCGTT GTCACCTGAA CAAATGGAAA AACCTGACA	1560
ACTGCCCTCA CTGTCGGCAT TTTAAAAGAG GTTTATGGTC AAGTTCTAAC CAACCCAAGC	1620
GGTGCCAACA TGATTACAGG GATTGCAACA ACCTTCCTAA CAGCCAAATC TTCTAAAACT	1680
GGGAAAAATA TTGCCGTCCT CGAAATTGAC GAAGCCAGTC TATCTCGTAT CTGTGACTAT	1740
ATCCAGCCTA GTCTTTTGT CATTACTAAT ATCTTCCGTG ACCAGATGGA CCGTTTCGGT	1800
GAAATCTATA CTACCTATAA CATGATATTG GATGCCATTC GGAAAGTTCC AACTGCTACT	1860
GTCTCTCTTA ACGGAGACAG TCCACTTTTC TACAAGCCAA CTATTCCAAA CCCTATAGAG	1920

779

TATTTTGTTT TTGACTTGGA AAAGGGACCA GCCCAACTGG CTCACTACAA TACCGAAGGG	1980
ATTCTCTGTC CTGACTGCCA AGGCATCCTC AAATATGAGC ATAATACCTA TGCAAACCTG	2040
GGTGCCATATA TCTGTGAAGG TTGTGGATGT AAACGTCCTG ATCTCGACTA TCGTTTGACA	2100
AAACTGGTTG AGTTGACCAC CAATCGCTCT CGCTTTGTCA TAGACGGCCA AGAATACGGT	2160
ATCCAAATCG GCGGGCTCTA TAATATCTAT AACGCCCTAG CTGCTGTGGC CATCGCCCGT	2220
TTCTTAGGTG CCGATTTCGA ACTCATCAAA CAGGGATTTG ACAAGAGCCG TGCTGTCTTT	2280
GGACGCCAAG AAACCTTTCA TATCGGTGAC AAGGAATGTA CCCTTGTCTT GATTAAAAAT	2340
CCAGTCGGTG CAACCCAAGC TATCGAAATG ATCAAACCTAG CACCTTATCC ATTTAGCCCTA	2400
TCTGTCCTCC TTAATGCCAA CTATGCAGAT GGAATTGACA CTAGCTGGAT CTGGGATGCA	2460
GACTTTGAAC AAATCACTGA CATGGACATT CCTGAAATCA ACGCTGGCGG TGTTCGTCAT	2520
TCTGAAATCG CTCGTCGCCT CCGAGTGACT GGCTATCCAG CTGAGAAAAT CACTGAAACG	2580
AGTAATCTGG AGCAAGTTCT CAAGACCATT GAGAATCAAG ACTGCAAGCA TGCCTATATT	2640
CTGGCAACTT ATACTGCCAT GCTGGAATTT CGTGAATGC TGGCTAGTCG TCAGATTGTT	2700
AGAAAGGAGA TGAACCTAAT GTTTATACTT CACTTTCCTC AAAAGATGGC AATTACCCCT	2760
ATCAGCTCAA CATTGCCAC CTCTACGGAA ATCTCATGAA TACTACGGGG ACAATGGAAA	2820
CATCCTCATG CTCAAGTATG TGGCTGAAAA ACTGGGAGCC CATGTGACCG TTGACATCGT	2880
TTCTCTCCAT GATGACTTTG ATGAAAATCA CTACGACATC GCCTTTTTCG GTGGTGGTCA	2940
AGACTTTGAA CAAAGTATCA TTGCAGACGA CCTACCTGCT AAAAAAGAGA GCATTGACAA	3000
CTACATCCAA AACGACGGTG TAGTTCTGGC TATCTGCGGT GGTTCCTAAC TATTGGGTCA	3060
ATATTATGTT GAAGCTTCAG GAAAACGTAT CGAAGGGCTA GGGGTCATGG GACACTACAC	3120
GCTCAACCAG ACCAATAACC GTTTTATCGG TGACATCAAG ATTCACAATG AAGATTTCGA	3180
TGAAACCTAC TATGGATTTG AAAATCACCA AGGTCGTACC TTCCTCTCTG ATGACCAAAA	3240
ACCGCTGGGA CAGGTTGTCT ATGGAAATGG AAACAACGAA GAAAAGGTCG GTGAAGGGGT	3300
TCATTATAAG AATGTCTTTG GTTCCTACTT CCACGGGCCT ATCCTCTCTC GTAATGCCAA	3360
TCTGGCTTAT CGCCTAGTTA CTACTGCCCT CAAGAAGAAA TATGGTCAGG ACATCCAAC	3420
CCCTGCCTAT GAGGACATTC TCAGCCAAGA AATCGCTGAA GAGTACAGTG ACGTCAAAAG	3480
CAAGGCTGAC TTTTCTTAAA CAAAGGAAAA TGATATCAAA GAACTCCGTT ATCTTGTCGG	3540
AGTTTTTTGT CTTTTCTTTT ACCCTTCTCC CTTGCATTTT CTCTCATTTT TTGCCAAAAT	3600
AGAGGGGTAG AAAGAAGGTA GCATATGTCT AAATTACAAC AAATCCTAAC ATATCTTGAA	3660

780

TCAGAAAAAC TAGACGTCGC TGTCGTATCT GACCCCGTCA CAATCAATTA CCTCACTGGT	3720
TTTACAGTG ATCCCCATGA ACGCCAAATG TTCCTCTTTG TCCTAGCAGA TCAGGAACCT	3780
CTCCTCTTTG TCCCAGCTCT TGAAGTAGAA CGTGCAAGTA GCACCGTTTC CTTCCCAGTA	3840
GTGGGGTATG TCGATTCTGA AAATCCATGG CAAAAATCA AACATGCTCT TCCACAACTT	3900
GACTTCAAAC GTGTCGCTGT TGAGTTTGAC AATCTCATCT TGACCAAATA CCATGGTTTG	3960
AAAACAGTTT TTGAGACTGC TGAGTTTGAC AACCTCACTC CTCGTATCCA ACGCATGCGC	4020
CTCATCAAAT CAGCTGATGA AGTGCAAAAA ATGATGGTTG CAGGTCTTTA TGCTGACAAG	4080
GCTGTTTCATG TTGGTTTGA CAATATTTCT CTTGATAAGA CTGAGACAGA TATCATCGCA	4140
CAAATCGACT TTGCCATGAA ACGTGAAGGT TATGAAATGA GCTTTGATAC CATGGTCTTG	4200
ACTGGTGATA ATGCTGCGAA TCCACACGGC ATTCCAGCAG CTAATAAGGT TGAAATGAT	4260
GCTCTTCTCC TCTTTGACCT GGGTGTCTG GTCAATGGCT ATGCGTCAGA TATGACTCGT	4320
ACAGTCGCTG TCGGCAAACC AGACCAATTC AAGAAAGATA TTTACAACTT GACTCTTGAA	4380
GCCCCAACAAG CTGCTCTTGA CTTTATCAAG CCAGGTGTGA CTGCTCATGA AGTGGACCGC	4440
GCTGCCCCGTG AGGTCATCGA AAAAGCTGGT TATGGTGAGT ACTTCAACCA CCGTCTCGGG	4500
CATGGTATCG GTATGGATGT CCATGAATTC CCATCTATCA TGAAGGAAA CGACATGGTC	4560
ATCGAAGAAG GCATGTGCTT CTCTGTGAA CCAGGTATCT ATATCCCTGG TAAAGTCGGT	4620
GTTGATATTG AAGACTGCGG TGTGTGTACC AAGGATGGCT TCAACCTCTT TACAAGCACC	4680
AGCAAAGATT TGCTTTATTT TGATTAACT ATATAGCCCC TATGCTTTCC TTTCAAATA	4740
TCTAGGGGCT ATTTTATTGT CATTTTCTG CTATTATGCT AAAGAAATTG GCTGCAATAA	4800
TCTAACCTTA AGTGTCTGGA ATGATAACGA GGGTGTCTC CGCTTTTATC AAAGACAAGG	4860
GATGAAACCC CAAGAAACAA CAATGGAAAT GATAATTGAT TAAGAAGTCA TCTATCAAAA	4920
GATGTTAGAA AAAGTTCAAT TTCACTAGAA AATGAGGAAA ATCTCCCCAC AATAAACGC	4980
ATAGTATCAG GTATTGTGTA CTGACCCCAA ACAGTTAGAC AATTAATTTA TCCGAAGGAT	5040
TTAGTTCTGT ACTGCACAGG ACTAAGTCCT TTTAGTTTTC CCTTAATTCG TTTGTTGTTG	5100
TAGTAATCAA TATAGTCTAT AATGACTTGT TCCAATTGGT TAAGTGATTT AAATGTTTTC	5160
TCATAGCCAT AAAACATTTT GGATTTTAAA ATGCCAAAGA AAGATTCCAT CATACCGTTG	5220
TCTTGCGTGT TTCCCTTGCG TGACATAGAT GCTTGAATTC CCTTATTCTC TAGGAACCGA	5280
TGATAAGAAT CGTGTGGTA TTGCCAGCCT TGGTCACTAT GGAGAATCGT ATTCTCGTAG	5340
TGCTTCTCTT TGAATGCCTG TTCCAACATT GTTGTACTT ATTCTAAATT AGGCGAACAA	5400
GAAAGATTAA AAGCAATAAT TTCGCTGTTA AAGCCATCTA AAAGTGGTGA TAAGTAAAGC	5460

781

TTTTGAGTAC TTGCTGGAAT GGCAAATTCA GTCACATCTG TGTAGCACCTT TTCCATTGTT 5520
 TTAGAGCCTT CAAATTGGGC TTGAATGAGA TTCTCTGCCT TCTTACCAAC GTCTCCTTTA 5580
 TGAGAAGAAT ATTTTCGTTT CTTTCGCATT TTAGCTTGTA AATTGAGTAC TTTTCATCAAG 5640
 CCTTGAAGTC TTTTATGATT TACCAGATAA CCACGATTTC TTAGTTCTAA ATGAACCCGG 5700
 CGATAAGCAT AATTTCCTT GTGTTTCGATA AAGATGGATT GAATTCAGT TTTAAGCTCT 5760
 TGGTCTTTAT CTGTTTGTG TAGCTGTTTC AAGTGATAGT AGTAGGTCCA ACGAGCTAGT 5820
 TTAATGGCTT CTAGAAGAAG ATCTAACGAA AACTCAGTCA TTAATCTCTG AACAAATTTCT 5880
 GTCTTCTTC TTTCTCTTT TCCTCCTTCA ATCGGAGTTC TCTTAACCTT TTTAGGATGG 5940
 CATTCCTCCG TCTCAGGTAC TCTCCCTCTT GTTTTCTCAA CAATAGTATA CCCGTTTTTC 6000
 CTGTATTGTG CTAGCCAGTT AAGAAGTATC GTACGACTTG GGAGACCGTA TTCAAGAGAA 6060
 ACTCTATCTT TAGTCCAGCC TTCATGTGAG ACTTTATTAA CCCCATTAT TCACCCCAA 6120
 TCTAAAAACC ATCCAGAATC CTTGCCTTAG CTTAGATCCT GGATGGTTTC TTTTTTCACC 6180
 CAATGGGTGT TTTTACTAG ACAAAAAGA GTTCCCTT TATGGTATAA GTGTAGAAA 6240
 AAACACAAAA AGAAAGGAAA CTCACATGAA CAGTTTACCA AATCATCACT TCCAAAACAA 6300
 GTCTTTTAC CAACTATCTT TCGATGGAGG TCATTTAACC CAGTATGGTG GTCTTATCTT 6360
 TTTTCAGGAA CTTTTTCCT AGTTGAACT AAAAGAGCGG ATTTCTAAGT ATTTAGTAAC 6420
 GAATGAmCAA CGCCGCTACT GTCGTTATTC GGATTGAGAT ATCCwTGTC AGTTCCTCTT 6480
 TCAACTGTTA ACAGGTTATG GAACGGAATA TGCTTG 6516

(2) INFORMATION FOR SEQ ID NO: 106:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14654 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 106:

TTTTCAACCC ATATCGTGGC TCCTGAATAC TACTTACTGA CAACTATGCT ATCAGAGACT 60
 TCTCTACTTG TTTTCTATAT CATTTTCATC CATAGAAAAC AACTCATCCA CTTGGGACAT 120
 ATCTTTAGCT ATACTGTTTC ATACTCTCTC TTTTCACTTT CCTTTGTAGC AATTATTTTC 180
 CTGATTAATT TCGTGTATCC TGTAATATG GTCATTAATT TGCCATTTT GATTAATACT 240
 GGTTCGATTG TCTTGCTATC AGCTATCTCT TATATTAGTC TACTTGTCTT CACAAAAGAT 300

782

AGCATTTTCT ATGAATTTT AAACCATGTC CTAGCCTTAA AAAATAAATT TAAAAATCA	360
TAGGAGTTTA AAATGAAACA ACTAACCGTT GAAGATGCCA AACAAATTGA ATTAGAAATT	420
TTGGATTATA TTGATACTCT CTGTAAAAAG CACAATATCA ACTATATTAT TAACTACGGT	480
ACTCTGATTG GGGCGGTTTC ACATGAGGGC TTTATCCCTT GGGACGACGA TATTGATCTG	540
TCCATGCCTA GAGAAGACTA CCAACGATTT ATTAACATTT TTCAAAAGGA AAAAAGCAAG	600
TATAAGCTCC TATCCTTAGA AACTGATAAG AACTACTTTA ACAACTTTAT CAAGATAACC	660
GACAGTACGA CTAATAATTAT TGATACTCGA AATACAAAA CCTATGAGTC TGGTATCTTT	720
ATCGATATTT TCCCTATAGA TCGCTTTGAT GATCCTAAGG TCATTGATAC TTGTTATAAA	780
CTGGAAAGCT TCAAACTGCT GTCTTTCAGT AAACATAAAA ATATTGTCTA TAAGGATAGC	840
CTTTTAAAAG ATTGGATACG AACAGCCTTC TGGTTACTCC TTCGACCGGT TTCTCCTCGT	900
TATTTTGCAA ATAAAATCGA GAAAGAAATT CAAAAATATA GTCGTGAAAA TGGGCAATAT	960
ATGGCTTTTA TCCCTTCAAA ATTTAAGGAA AAGGAAGTCT TCCCAAGTGG TACCTTTGAT	1020
AAAACAATCG ATTTACCTT TGAGAATTA AGCCTTCCTG CACCTGAAAA ATTTGATACT	1080
ATTTTGACAC AATTTTATGG AGATTATATG ACCCTACCAC CAGAAGAAAA ACGCTTCTAC	1140
AGTCATGAAT TTCACGCTTA TAAATTGGAG GATTAGGATG CAATATTTAG AAAAAAAGA	1200
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TCCTTGGGAT GATGATATTG ATATTTCCCT TTATCGTGAG GATTATGAGC GTTTACTGAA	1380
GATTATTGAA GAAGAAAATC ACCCTCGCTA CAAGGTTCTT TCCTACGATA CATCTTCTTG	1440
GTACTTCCAT AATTTTCGAT CGATTTTGGA CACTTCTACT GTTATAGAAG ACCATGTTAA	1500
GTACAAGCGT CATGATACCA GCCTTTTCAT CGATGTCTTC CCAATTGATC GATTTACAGA	1560
CTTGAGCATT GTCGACAAGA GCTATAAGTA TGTGGCTCTT CGTCAACTAG CTTATATCAA	1620
AAAATCACGA GCAGTTCACG GTGATAGCAA ACTAAAAGAT TTTCTTAGAT TATGTAGCTG	1680
GTACGCTCTC CGATTTGTCA ATCCTCGCTA CTTTACAAG AAAATTGATC AACTAGTCAA	1740
AAATGCTGTA ACCAACACTC CTCAATATGA AGGAGGAGTT GGGATCGGTA AGGAAGGGAT	1800
GAAAGAAATC TTCCAGTTG ATACCTTTAA AGAACTGATT TTAAGTGAAG TTGAGGGCCG	1860
TATGTTGCCT GTTCCCAAAA AATATGACCA ATTTTAAACC CAGATGTATG GCGATTATAT	1920
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AAACTGATTG AGGGGGATTA TACAACTAC TAAGATAGAG GTTATTCAAA AACATAATTT	2040
TAGTAGAAAA TGAATACAT ATCCCAACA TAAACGCAT CATATCAAGG TTTTGA AAA	2100

ACCTTGATAT GATGCGTTTT ATAATTTTAA AGACTTTTTT CTATAGTAGA TTGAAATAAG	2160
ATGCGAACAA ATCAATTAGA AAATTCAAAT TAATTTATAG AAATATTTTA GTATTCCTGT	2220
GTA CTGTTCT AAATTCAGTC TGCTATATCT TATTTTCTA TTTAAATCGC TTCTGTAACA	2280
AAGCTACGAC TTCAAGTAC CTTAAGCATG GCATTAGCTG TATCTAGCGC TGTGAAGAGG	2340
GGCACCCCGT GTTCAATGGC TGAACGACGA ATTTGCTCAC CATCTTCGTC AGCAGTTCGT	2400
TTTGTTCCCTA CTGTGTTAAT GATAGCTTGA ATTCTTCCTT TGGGTACAAA ACTTGGGATA	2460
TCCTTATCGT CATCACCAAT CTTACCAACA GGTGGGCTT GCAAGCCATG ACTAGCAAAG	2520
AAGGCTGCTG TCCCTTCTGT CGCAAGGATT CCATAACCAA TGTTTTGGAA ACGACGAGCC	2580
AAGTTCAAGG CTTCTTCTTT GGCATCATCA GCGATGGTAA AGACGACATT ACCAAAAGTT	2640
GGCAAGTGTA GATAAGAAGC TTCAAAGGCT TTATAGAGAG CTTTTTCCAA AGTAGCATCA	2700
GAACCCATAA CTTACCTGT TGACTTCATT TCAGGACCGA GCAAGCTGTC TACCTTAGCT	2760
AGTTTGGTAA AGGAGAAGAC AGGTGCCTTG ATATGAACAC GGGTGCTTTC AGGGTAAAGT	2820
CCATTTTGGT AGCCAAGTTC TGATAAACTT TGACCAAGAA TGAGTTTGGT CGTACTTGA	2880
GCCATAGGAA TATTGGTTAC CTTAGATAGG AATGGAACAG TACGGCTGGC ACGTGGATTG	2940
ACCTCAATAA CGTAGACTTT TTCATCCTTG ATAACAACT GGATGTTTCT CATTCGAAGG	3000
CAGTGAAGAC CGATTGCTAA GCGTTTGGTG TAGTCTGCGA TGGTCTCCTG AACCTTTTGC	3060
GACAAGGTTT GTGGTGGTA AACAGCCATT GAGTCACCTG AGTGGACACC AGCACGTTCTG	3120
ATATGCTCCA TGATACCAGG AATGAGTACA TTTTACCCT CTGAAATGGC ATCAACTTCG	3180
CACTCTTGCC CAACGATATA AGAGTCGACA AGAACTGGGT GGTCTGGACT AGCCTTAACA	3240
GCAGTTCGCA TGTAAGAACG AAGGTCTTCT TCGTTTTCAA CGATTTCCAT GGCACGTCCA	3300
CCAAGTACAT AAGATGGGCG GACAAGAACT GGAAGCCAA TCTTGGGAGC TGCAAGAGCT	3360
GCTTCTTCTT CATTGGTAGC CGTTTGTCTT GGTGGCTGTG GAATATCCAA TTCTTTGAGA	3420
GCTTGCTCGA AGAGGTCACG GTCTTCGGCA CGATCTAGGT CAGCAACCTG TGTACCAAGG	3480
ATGGTCACAC CTGCTTTTGC CAATGGCTCC GCAAGGTTGA TGGCTGTTTG ACCACCGAAC	3540
TGAACGATAA CTCCTTTTGG TTGTCCAAG TCAATGACGT TCATAACATC TTCGAATGTC	3600
AATGGCTCAA AGTAAAGCTT ATCTGATACA GAGAAGCTG TTGAAACGGT CTCTGGGTTT	3660
GAGTTCATGA TGATAGCTTC ATAACCAGCT GCCTGGATAG CCTTAACAGA GTGAACGGTT	3720
CGGTAGTCAA ACTCAACCCC TTGACCGATA CGGATTGGAC CTGAACCTAG GACAAGTACA	3780
GATTCTTTAT CAGATCTGAT AGATTCATT TCCCAACCAT AGGTTGAATA GAAATATGGC	3840

784

GTTTCGGAGT	CGAACTCTGC	CGCACAAGTG	TCTACCATCT	TATAAACTGG	AACAATCTTG	3900
TTTTCCAAGC	GAAGTTGGCG	AACTTTATCA	TCAGTCGTTC	CCCAGAGTTC	AGCAATCTTA	3960
CGGTCTGAAA	AACCATTAAG	TTGGCTGTT	TTCAAACTT	CTAAATCTTG	TGGATGAGCA	4020
CCCAATTCTT	GCTCAATTC	AAAGATATGC	AAGAGTTTAT	CAAGATAGAA	GATATCAATT	4080
TTTGTAAGCT	CTGCAATTC	TTCAGGTGTG	TAGCCACGAC	GAATGGCTTC	TGATACGTAG	4140
AAGAGACGGT	CATCTTGGGC	TTTGACAACC	TTTTCAATCA	AGGCATCATC	AGAACTGCT	4200
GCAAGTTCAG	GTATTTCAAT	GTGGTGACCC	CCAATTTCAA	GGGAGCGGCA	GGCCTTGAGA	4260
AGAGATTCCT	CGATGTTACG	ACCGATTGCC	ATGACTTCTC	CAGTCGCCTT	CATTTGTGTA	4320
CCGAGACGGC	GTTCAACCCTT	TTCAAACTTG	TCAAATGGGA	AACGTGGAAT	CTTAGCAACT	4380
ACGTAGTCAA	GGGCTGGTTC	AAACATGGCA	TAGGTTGAAC	CTGTAAGTGG	GTTTATAACC	4440
TCATCCAAGG	TCAAACCTAC	TGCAATCTTG	GCAGCCAAC	TAGCAATCGG	ATATCCTGTC	4500
GCTTTAGAAG	CAAGGGCTGA	CGAACGTGAT	ACACGAGGGT	TTACTTCGAT	AACATAATAC	4560
TTGAAGCTGT	TAGGATCAAG	AGCTAGCTGA	ACATTACATC	CACCTTCAAT	CTTGAGGGCA	4620
CGAATAATGC	TCAAGCTCGC	ATCACGAAGC	ATTTGGTTTT	CATAGTCTGA	CATGGTTTGC	4680
GCAGGGGCAA	ATACAATGGA	ATCCCTGTG	TGAATCCCAA	CTGGGTCAAA	GTTTTCATG	4740
TTACAAACAA	CCAAGGCATT	GTCAGCTGAG	TCACGCATCA	CTTCGTATTC	AATTTCTTTG	4800
AAACCGGCAA	TCGAACGCTC	AATCAAACAT	TGGGTAACAG	GTGACAATTT	CAAACCATTT	4860
TCAGTGATTT	CACGCAATTC	TTTCTCGTTG	GCACACATAC	CACCACCAGT	ACCACCAAGG	4920
GTAAAGGCTG	GACGAACGAT	GACTGGGTAG	CCAATTGTTC	CTGCAAAGGC	AACGTCTTCT	4980
TCTACTGTGT	TAACAATTTT	AGATTCTGGA	ATGGGTGTTT	CAAGCTCTTC	CATCAATTGT	5040
TTAAAGAGGT	CACGTCCTC	CGCTTGGTCA	ATGGCAGATA	ATTTGGTACC	CAGAAGTTCA	5100
ACGCCAAGCT	CGTCTAGGAT	ACCATTTTTA	GATAATTCCA	TGGCCATGTT	GAGACCTGTC	5160
TGACCACCGA	GTGTTGGTAG	CAAGGCATCT	GGACCTTCCT	TACGAAGAAT	ACGTGTCACA	5220
AACTCAAGTG	TAATCGGTTC	AATGTAAACC	TTGTCAGCAA	TTTCCTTGTC	CGTCATGATG	5280
GTTGCAGGAT	TTGAGTTAAC	CAAAACAACC	TCATAACCTT	CCTCTTTCAA	CGACAAGCAA	5340
GCCTGAGTCC	CAGCGTAGTC	AAACTCAGCA	GCCTGACCAA	TAATAATCGG	ACCAGAACCA	5400
ATCACCATAA	TTTTTTGAAT	ATCAGTACGT	TTAGGCATAT	ATAAGATATT	AAGGGTGTCA	5460
AGCGGACAAA	GCTAAATAG	GAGTTATGAC	GAAGAAGTGT	CAGTTCTAGG	AATAACTATC	5520
TTTTTTAGCAC	CGTCCGTAGC	CCGTATTTCAG	TTCAGCAAAT	ACGGAGCACC	CTTCTCCTTT	5580
CTATTCGTCG	CCTCTCAGGG	CGACATTAAA	TAAGATACAA	AGGACGAATA	GAAAGCGATT	5640

785

GAATTTTAGG AAATCAAGGA AGGATTGACA ATCCAAGTTG GTTCTCTAC ATTCTGAGCT	5700
TTCCGTCCTG GTTCAGTTAC ATAAATTCTC CGACGAGCTT TTACTCGTTC TTAGTTTGAT	5760
TGTTTAAAAA CTTCATCAT CTCGATAAAC TCGTCAAATA GGCTAGCTAGC GTCGTGTGGC	5820
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CCTTCCACTG ACTTGTCATT GATTTCTTCG TGGGTAATAA TCAAGTGCTC TGGCAAATCC	5940
TCGCGGCTGA CTGCATAACC ATGGTTCTGG CTGGTGAAGT CTACTCGTCC TGTTCGATTT	6000
TCACGTACCG CATGGTTGAA TCCACGGTGG CCAAACCTCA TCTTATAGGT CTAGCCCCG	6060
TTTGCCATTG CAAAGAGTTG GTGTCCATA CAAATACCA AGATTGGAAT TTTTCCTGT	6120
ACACCGCGAA TCATGTCGAG TGCTTGTGGA ACGTCTTCTG GGTTACCTGG ACCATTTGAC	6180
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TCCACTAGCA CCACGCTCAA ACCAACTCCT GGAGCTGGAT AAGACGTTTT AGTAGAAACC	6360
TGTTTGATAT TGTCTGTGCG TAAACTGTG GCTTGGAGCT GGTCCGTCAC ATGGTCCATA	6420
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ATAGTCTGCA AACTCTTGAC TTCTCCATTC CTCAGGTCCA GCGAAAAAGA GTTCAGCTCC	7260
CAAGCGTTTC AAAATCTGCA TATTGGATTT GGCAACGCGT GAGTGGTCCA AGTCACCTGC	7320
AATAGCAACT TTAAGACCCT CAAAGTGGCC AAATTCCTCA TAAATGGTCA TCAAATCAAG	7380

786

CAAGCTCTGG CTAGGGTGTG GCGCCGAACC ATCTCCACCA TTGATGATGG AAGTCGTAAT	7440
CGTTGGACTA GCAATCAATT CTCTATAGTA GTCGACCTCT GGATGGCGAA TCACACAGAC	7500
ATCCACTCCT AAAGCAGACA GAGTCAAAAT GGTGTCATAA AGTGCTCAC CCTTATTAAC	7560
CGAGCTAGTC TTCACATCAA AGTCAAGTCG TTCCAATCCA AGTTAATCT CTGCGACTTC	7620
AAAGGACTTA TGTGTCCGTG TAGAATCCTC AAAGAAGAGA TTGGAAACAA TCGGATGGTC	7680
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CATGGCTACT CCTTTAACTT TCTAAGCTTC TTCAGTAATC AGAACTCTGT CTTGGTCATC	7860
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GTAATCTGGA CGGATTGGCA ATTCTCTATG FCCACGATCG ACTAGAATCG CTAAGCTCAC	7980
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AGTATCTTCT CCACTTTTAA CATCATCAGC GAAAGGTTTA GTATCCAATT CCACAACAGG	8160
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ATAAGTAATA CGCGTAATCG CTCGTTTGAC GGTCAATTCG TCTACAACTT CTTTGTGTTT	8340
CATGACAAAC CTCCAAAAAG AAAAGTCTCC TTAACAAGG AGACTTGAAA TTTATAGCCA	8400
AGCGAGCCCT ACTGCACACA GTATAGACTT CACCCTTCTA CTTTATCGCG CTCCTTGCCT	8460
GCCTCACGGG ACAGGTTTAA AGGAATATTT AGTTATCATT TACTATAGCA CAAAGCATGC	8520
TTAAAATCAA GCAAAAAGTT TCAATGTAGC ATCTTACAAA TTGCTAAAAT CATATAATTG	8580
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GGCCTGATGG GCAGCTAACC ACTGCTCAGG CGGCAAGATA TCCATGACCC GCTTTTCCAC	8700
CTCAAGTGGC GTCGCTGATT TTTTGACAAT ATCGTGGTGT TTGCAAATAC GCTCCACATG	8760
AGTATCCACT GCAAAGGCTG GAATTCCAAA TCCTACACTC ATGACAACAT TGGCTGTCTT	8820
GCGACCAACA CCTGCCAAAC TCTCCAATTC TTCACGTGTC TGAGGGACTT GACCATCAA	8880
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CAAGCGAGAA ATATGTGAAG CAATCTCACT CTCTGTCGCT ACAGACATAG CTTGGGGTGT	9000
TGGAAAGGCA ACAAAGAGAC CTGGTGTCG CTTATTTACC GCTGCATCTG TCGTCTGGGC	9060
TGATAACATG ACCGCAACCA GGAGTTCAAA ATGATTGGTA AAATCAAGAC TAGGCTTGGC	9120
ATCTGGGAAG AGGGCAATGA TTTCTTCTAG CACCTTTCGT GCTCGTTTTT TTGACAAGAC	9180

CATTATTCAT CTCCGTCAAA TAGTCCTTGT AAGCCAGCAA AAGGACTGTT TTCTTCTTTC	9240
TTTACTGCTT TTTGAGCTTG GTATTCTTCC TCTGTCATGA TTTGCCAGTC ATTTCTGAG	9300
ATAAATCCTT GACCAGCTTC TTCTTCAGCC GTCAAGACCT TGATAGGAAT GTTTAGCAGG	9360
ATATTGTCTG ATACACTCTC AGCAAGGTCA AGCTCCCCAT TTTCGATGGG CAAGACCAAG	9420
TCATCATCTA AAACCTTCTG ATCTAGCTGG TTAGTTGCGC CTTCATGAA AACTTCCGTG	9480
ACTGGATAAG ATTCAACTAA CTCAACTGGC TCCATACTGC GACTCGACGC AAGAACAATG	9540
GTATAAGATA GTTGATAATC TAAGAAATAC ATACGGTCTT CATATTGTAC TTCCCAACT	9600
GCAAGGATAT CTTTACATC TAAATTTCT TGATTACGTG CACGCAGGTC ATCAACTAAA	9660
TCTAACGTTT GTTCAAAGTT CAAACCTTCA GACTGCTTAC GAATTTCTTG AATATTTAAT	9720
TTCATACTTC TCCATAAAG ATTTACTCTC TTGATTATAC CATGAAAAGG CTACAAATCA	9780
GCACACCAAA CTTTGTAAAT AAAATTCAAA ATTTTAACAT ATTTACTATG ATAGTTTAT	9840
TTTTTAGTGC TATACTATAG GGAAAGAGTA CATCAGATCA AGGAGGATGC TCACATGGAA	9900
GACAAGAAAC TCATTCAACT CCTATCCAAG TTAAATAAAA GCTACCAAAA CTGTAAACAG	9960
GGTACGGCAG ATGATATTCTG ACTACAAGAG CTGTAAACA CTACTATGCA AGAGCTCAAA	10020
AAAACGGAAC AGTTGAACAA CAGTATCTTA ATTGATCTTG AGAAATTTTA CCAACCTACC	10080
AGTCTTCTGA TTGGACTGGG TAGCCTAAAA CTAACGATC AAGCACGCAC TGCTTGGCGA	10140
AACTATGATA AATTCCATTA CGATCATGTC AAACACGTAC TAAGTCTCTA TGGACCTGTT	10200
TTTGAATTTT AGAGCATAGA ATTTCCAGTT TTCTGTTGAC AAAATTTCTT TAAAGGTATA	10260
ATATAAAGAT ACTAATACTC GGAGGTAAGG GAGACATGAA CAACTAAGTC TATCAAATAA	10320
AGAACCTTTA TTTAGTAGAT CTTGTTTTTG TCTCTTTTGG TGTGCTCTTT TATGCTCTTT	10380
TTCTGGCATG TTAATAGAGT TTTTGTGACA TAGACTTTGG GCTCTACTAG GTAAAGTAGA	10440
GCTTTTGTGTT ATGCACTATG AACATTCTAG AAAGGGAAAT CATATGATAA AAATCAATCA	10500
TCTAACCATC ACACAAAACA AAGATTTACG AGATCTTGTA TCTGACCTAA CCATGACCAT	10560
CCAAGACGGG GAAAAGGTTG CTATTATTGG TGAAGAAGGA AATGGCAAAT CAACCTTACT	10620
TAAATTTTAA ATGGGGGAAG CTTTGTCTGA TTTCACTATC AAGGGAAACA TCCAATCTGA	10680
CTATCAGTCA CTGGCCTACA TTCCTCAAAA AGTCCCTGAG GACCTAAAAA AGAAAACTTT	10740
ACACGACTAC TTCTTTTGTG ATTCTATTGA TTTAGACTAC AGTATCCTCT ATCGTTTGGC	10800
GGAGGAATTG CATTTTGATA GCAATCGTTT CGCAAGTGAC CAAGAGATTG GCAATCTATC	10860
AGGGGGCGAA GCTTTGAAAA TTCAGCTTAT CCATGAGTTA GCCAAACCCT TTGAGATTCT	10920

788

ATTTTGTAGAT GAACCTTCAA ATGACCTAGA CCTTGAGACA GTTGATTGGC TAAAAGGCCA	10980
GATTCAAAAG ACCAGGCAAA CCGTTATTTT CATTTCCCAT GATGAAGACT TTCTTTCTGA	11040
AACGGCAGAC ACTATTGTTC ACTTGCGACT GGTCAAACAC CGTAAAGAAG CGGAAACGCT	11100
AGTAGAGCAT TTAGACTATG ATAGCTATAG TGAGCAGAGA AAGGCTAATT TGGCCAAACA	11160
AAGTCAGCAA GCTGCTAACA ACCAAAGAGC CTACGATAAA ACCATGGAAA AACATCGGAG	11220
AGTTAAGCAA AATGTAGAAA CTGCGCTTCG AGCTACCAA GATAGTACTG CCGGTCGCCT	11280
ATTGGCTAAA AAGATGAAAA CTGTCCTCTC ACAAGAAAA CGCTACGAAA AGGCGACTCA	11340
GTCCATGACT CAAAAGCCAC TTGAAGAGGA ACAATCCAA CTTTCTTTT CAGACATCCA	11400
ACCATTACCA GCTTCTAAAG TCTTAGTCCA ACTGGAAAA GAAATTTGT CCATTGACGA	11460
CCGAGTTTGT GTTCAAAAAC TACAACCTAAC TGTCCGTGGC CAAGAAAAA TCGGTATTAT	11520
CGGGCCAAAT GGTGTTGGGA AATCAACTCT GTTAGCCAAG TTACAGAGAC TTCTGAATGA	11580
TAAAAGAGAG ATTCACTTG GTTTTATGCC ACAAGATTAC CACAAAAAC TGCAATTGGA	11640
TTTATCCCCA ATAGCCTATC TCAGTAAAC TGGGAAAAA GAGGAACCTAC AGAAAATCCA	11700
ATCTCACCTA GCTAGTCTCA ATTCAGTTA TCCAGAAATG CAGCATCAA TTCGCTCCTT	11760
ATCTGGCGGA CAACAGGGA AACTCCTGCT TTTGGATTTA GTCCTGCGCA AACCAACTT	11820
TCTCCTGCTG GATGAACCCA CACGAACTT TTCTCCCACT TCTCAACCCC AAATCAGAAA	11880
ACTCTTTGCT ACCTATCCAG GCGGTCTCAT CACTGTTTCG CATGACCTC GTTTCTTAAA	11940
AGAAGTCTGC TCGATCATCT ATCGCATGAC AGAACACGGT TTGAAGCTAG TTAATTTAGA	12000
AGATTTATAA ATTTGCAACA TAGCAAAAAT CCAGAGACGA CCTCTGGATT CTTTACATC	12060
TGTTTTAAAC GTTCAATCCG TTCTGAGATA GGTGGGTGGG TATAAAGAG TTTTGGAAC	12120
CCCCACCTT TCTTAGGATC ATTGATATAA AGGCACTGC TAGCATCATC GACGTGGCGA	12180
CTCATAGGTT TGCTATTGTC CAACTTATCT AGGCGATTAA TCATTCCCTG GGGATTGCGA	12240
GTCAGCTCGA CACTAGATGC ATCTGCCAGA AATTCCCTCT GACGAGAAAT AGCGAGCTGA	12300
ACCAAGGTTG CAGCGAGAGG TGCCAGTACA ATAGCTAGTA GGGAAACCAC TAGCATAATG	12360
ATTTCAAGAC CATTTCCATC TCGGTCATCA TCACTTCGTC TCGACCTGC TCCACCCAC	12420
CACATCATAC GACCTGCCAT ACTAGAAAGC ATGGTGATAG CACTAGCAAG GGCAACTGCA	12480
ATAGTCGAAA TACGGATATC ATAATTACGA ATATGACTGA CTTTATGTCC CATAACAGCT	12540
TCTAGTTCTT CACGATTCAT GATAGCTAGT AGACCTGAAG TCGCAGCAAC AGCCGCATTT	12600
TGAGGATTAG AACCTGTCGC AAAGGCATTT AAGGCTGGAT CATCAATGAT GAAAACACGG	12660
GGCATAGGAA TCTGAGCGAC CAGAGCCATA TCTTCCACTA CATGGTAGAG GTCTGGTGCC	12720

789

GTTTGCTCAT CCACCTCAG CGCTCCATTC ATGGACATGA CAATCTCTGT CGATTGAAAA	12780
ATCATAGACA AAGCGTAGAT AAAGCCGATA ATCAGTGCAA TAACCAAACC ACCAAGTCCA	12840
GATCTTATAA AGAGATAACC AACCGCATAA CCAACAAGAG CTAAGAGTAG GAAAAATACC	12900
AGCAACAAAA TCCAGGTTTTC TCGTTTATG CTTGCAATTT GATCAACAA CATCTTAGTC	12960
ACCTAAACCG CTAAATCAA CTTTAGGAAC CGACTTTTCC TCTTCAGGTG TTGAAGGAA	13020
ATCTGCCGCT TTAAATCCAA ACATTCCAGC GATAATATTG CTCGGGAAAG TTTCTAATTT	13080
TACATTGTAG TTGCTGACAA CACTGTTATA GAGTTGACGA GAGTAAGAAA TTTTATTTTC	13140
TGTGTTGTG AACTCCTCTT GCAATTTAAC AAAGTTAGCA CTAGCTTTCA AATCTGGATA	13200
GCTTCTGCA ACTGCAAAAA TACCTGAAAC CTGACGAGTG AGGGCATCAC TGGCTTTCAT	13260
AGCTTCTGCT GGTGAAGTCG CTGCCGCCAC TTGGTTACGT AGTTC TGCCA CCTTTTCAAG	13320
GGTAGAACCT TCATATTTGG CATAACCTTT TACAGTCTCA ATCAAGTTTG GCAAGAGGTC	13380
ATTGCGACGT TTCAACTGAA CATCAATCTG ACTCCAAGCC TCCTTGGTTT GCATACGATT	13440
TTTAACCAAA CCGTTATAGC TAACAATCAC AAAATAACA ATAAGAGCGA TAACTCCAAG	13500
AATAATCCAA GTCATAATAT AAGTCCTTTC TGCTTTTAGA TTAGTACCAG TATATCAAAT	13560
TTTCTATGAT TGTGGTAAAA TAAGATGATA CTAAAGAAGG AAATAACTAT GAAACCAAAA	13620
ACATTTTACA ACTTGCTTGC CGAGCAGAAT CTTCCACTTT CGGACCAGCA AAAAGAACAA	13680
TTTGAACGTT ATTTTGAGCT CTTGGTCGAG TGGAATGAGA AGATTAAATT GACGGCGATT	13740
ACGGACAAGG AAGAAGTTTA TCTCAAACAT TTTTACGATT CGATTGCACC CATTCTTCAA	13800
GGTTTGATTC CCAATGAAAC TATCAAACCT CTTGATATCG GGGCTGGGGC AGGATTCCT	13860
AGTCTACCAA TGAAAATTCT CTATCCGGAG TTAGATGTGA CCATTATTGA TTCACTCAAT	13920
AAGCGCATCA ACTTCCTACA ACTCTGGCT CAAGAACTGG ATTTGAACGG AGTTCATTTC	13980
TACCACGGAC GTGCCGAAGA TTTTGCCCAA GACAAGAAGT TCCGTGCTCA ATATGATTTT	14040
GTAACAGCTC GTGCGGTTGC CCGTATGCAG GTCCTATCTG AATTGACTAT TCCCTACCTT	14100
AAGGTTGGTG GCAAACTATT AGCACTCAAG GCTAGCAATG CGCCTGAGGA ATTATTAGAA	14160
GCTAAGAATG CCCTCAATCT CCTTTTATAGT AAGGTCGAAG ACAATCTCAG TACGCCCTAC	14220
CGAATAGAGA TCCGCGCTAT ATCAGAGTG TAGAAAAGAA AAAAGAAACA CCAAATAAAT	14280
ATCCACGTAA GGCTGGTATG CCAAATAAAC GCCCACTTTA AATTTTTTAG TAAACAAATG	14340
TTTACAAAAT CAGCTCGCT CTTTTATTTC TAGGCTCGGG AAAAAATGAT TTACAAAATC	14400
AGCCTCGCTC TTTTATTCT AGGCTCGGA AAAAATGATT TACAAAATCA TTTTTTCTG	14460

790

CTATACTATC CTAAGCAAAG GTTTTTAATG TCATCCCGTG AGGTGACGAA GACGCAGAAA	14520
TATTTAAAAC TCTTTAAAT CTAATTTTA AAGAAGCTT ACTCTGAGGG CCTATTGCTG	14580
TAAAATAATG GGCTCTTTT TGATGCCCAA AAGTGAGGT TATATGAAAC AAGAATCAAC	14640
TGTTGATTG TTAC	14654

(2) INFORMATION FOR SEQ ID NO: 107:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6405 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 107:

AGAAAAATCT GCTTTACAGA AAATAAAAT AATAGGAGAA AATCTATGTC AGATTGAAA	60
AAATACGAAG GTGTCATTCC AGCCTTCTAC GCATGTTATG ATGATCAAGG AGAAGTAAGC	120
CCAGAACGTA CGCGTGCCTT GGTCAATAC TTCATGATA AAGGTGTTCA AGGTCTTTAT	180
GTCAATGGTT CTTCTGGTGA ATGTATCTAC CAAAGCGTTG AAGATCGCAA GTTGATTTTG	240
GAAGAAGTCA TGGCGGTAGC AAAGGTAAAT TGACCATTAT TGCCCATGTT GCTTGCAATA	300
ATACTAAAGA TAGTATGGAA CTGCTCGCC ATGCTGAAAG CTGGGAGTA GATGCTATTG	360
CAACGATTCC ACCAATTTAT TTCCGCTTGC CAGAATACTC AGTTGCCAAA TACTGGAACG	420
ATATCAGTTC TGCAGTCCA AACACAGACT ACGTGATTTA CAACATTCCT CAATTGGCAG	480
GGGTTGCTTT GACTCCAAGC CTTTACACAG AAATGTTGAA AAATCCTCGT GTTATCGGTG	540
TGAAGAACTC TTCTATGCCA GTTCAAGATA TCCAAACCTT TGTCAGCCTT GGTGGAGAAG	600
ACCATATCGT CTTAATGGT CCTGATGAGC AGTTCCTAGG AGGACGCCTC ATGGGGGCTA	660
GGGCTGGTAT CGGTGGTACT TATGGTGCTA TGCCAGAACT CTCTTGAAA CTCAATCAGT	720
TGATTGCGGA TAAGGACCTA GAAACAGCGC GTGAATTGCA GTATGCTATC AACGCAATCA	780
TTGGTAAACT CACTTCTGCT CATGGAAATA TGTACGGTGT CATCAAAGAA GTCTTGAAAA	840
TCAATGAAGG CTTGAATATT GGATCTGTTT GTTCACCATT GACACCAGTG ACTGAAGAAG	900
ATCGTCCAGT TGTAAGAAGC GCTGCTGCCT TGATTCTGTA AACCAAGGAG CGCTTCCTCT	960
AATCTAAAAG GAGGTATTTA TGACATATTA CGTTGCAATT GATATCGGTG GAACCAACAT	1020
CAAGTATGGT TTGGTTGATC AAGAGGGGCA ACTTCTTGAA TCGCATGAAA TGCCAACTGA	1080
GGCGCATAAG GGTGGACCTC ATATCTTACA AAAGACCAA GATATCGTAG CTAGTTATTT	1140
AGAAAAAGGC CCAGTAGCAG GTGTTGCCAT ATCTTCTGCT GGGATGGTGG ATCCGATAA	1200

791

GGGTGAGATT TTCTATGCTG GGCCGCAAAAT CCCTAACTAC GCAGGCACCC AGTTCAAAAA	1260
GGAAATCGAA GAAAGCTTTA CTATTCCTTG TGAGATTGAA AATGATGTCA ACTGTGCAGG	1320
TCTTGCTGAG GCAGTATCTG GTTCAGGCAA GGGAGCAAGT GTGACACTTT GCTTGACCAT	1380
TGGAACCGGT ATCGGTGGTT GCTTGATTAT GGATAGGAAA GTCTTCCATG GTTTTAGCAA	1440
TTACAGCCTGT GAAGTCGGT ATATGCATAT GCAGGATGGA GCTTTTCAAG ACTTGGCTTC	1500
TACAACAGCT TTAGTGAAAT ATGTAGCTGA AGCCCATGGA GAAGATGTTG ATCAGTGGAA	1560
TGGCCGTAGA ATTTTCAAAG AAGCCACTGA AGGAAACAAA ATCTGCATGG AAGGTATTGA	1620
CCGTATGGTT GACTATCTAG GAAAAGGTCT GGCAAATATT TGCTACGTTG CCAATCCAGA	1680
AGTGGTTATT CTGGTGGTG GTATCATGGG GCAAGAGGCT ATCCTCAAAC CTAAGATCCG	1740
TACAGCCTTG AAAGAGGCTT TGGTACCAAG TTTAGCAGAA AAAACACGAT TAGAATTTGC	1800
CCATCACCAA AATACAGCAG GGATGTTGGG TGCATATTAT CATTTTAAGA CAAAACAATC	1860
CTAGTTTGGC TCAGCCAAAC TAGGATTTTC TTACACGTTT TTGTCTACGA TAGCCGTTGA	1920
GTTTTATTAT TTCCAGTAG CTATTAAAGA TTTTTCCTT GCTTTCGCGA TTGATTTCCA	1980
AAAAGTAGGC ATAAATCAA TCGATAAAGA AGAGCATAGG AAGTTGAGCG GATATTCGTT	2040
GGATATAGGA GGGTTGGCTG TGGTGGCTA CAAGAACAGT CTCTGTATAG GTCTGGCTAT	2100
CTTTATTGGG AACACTTGTA AAGAGTACAG TCTTTGCCCC CATCTCCTTA GCATCTAATA	2160
GACTATCTAA AATAGAAGGA GTTGAGCCTG AAAGTGAGAA GCCCAGTACT AGACAATTTT	2220
CATCCATGAT GCTGGTTGTC CAGGCAAAGC CGTCTTGGTC TGTCAAAGCT TCGCAGACCA	2280
CACCTAGTCG CATAAACGT AATTCATTT CACGGGCGAC GAGGCCAGAA CTCCTGTTTC	2340
CAAAGAAGTA GATACGCTCA GCATCTTCGA TTAGCTGGGC AATTCGTTCT AGTTGGATTT	2400
CGTCAATCAA GTCTTGTTT TGTTCCTCA TATTGCTATA ACTTCTGAGG ACTCGTTTGG	2460
TCAGTGGACT GTGCTTGAG ACTTGGTTGG CTTGATTTTC TGCCTGATGT TGGTATTGGA	2520
AAATAAATTC TCGGTAGCCA GTAAAGCCAC ACTTTTTCAG AAAGCGGGTC AAAGCAGCTT	2580
GAGAAATATG TAATTTTGG GTGACTTGTT GAGAAGATAA ATCATCTGTA ATCGTTTCAG	2640
CTTGCAAAAA ATAGCGAGCG ATTTCTTGTT CTAGGTCTGT CATTTCTTCA AAATGTGAAT	2700
CAATGATAGT TGCGATATCT GGTTCCTCA TAGGGAAAGC TCCTTTACAT GAGTCATACT	2760
GGAAGACTAG ATCAGAGAAT AGTCACACTT CATTATAACA CATAATATAA GGATAGATAA	2820
ATAAAAACGC ATCTCTGTTT TAAAAACGAA AAAATCGAAA AAGCTTCTCT CTTTCCATA	2880
ATTTTCTACT CAAATTGTGG TACAATTAAG AGTAAGATTT TAAGTTAGAA ATGAGACTGA	2940

792

TTGTATGAG AAAATTTAAC AGCCATTCTG TTCCGATTCTG GCTTAATTTA TTGTTTTCAA	3000
TCGTCATTTT ACTCTTTATG ACCATTATTG GTCGTTTGTT GTATATGCAG GTTTTGAACA	3060
AGGATTTTTA CGAAAAAAG CTAGCTTCAG CTAGTCAGAC CAAGATTACA AGCAGTTCAG	3120
CCCGTGGGGA AATTTATGAT GCTAGTGGAA AACCTTTGGT AGAAAAATACG TTAAAGCAGG	3180
TTGTTTCCTT TACGCGTAGC AATAAAATGA CGGCTACAGA CTTAAAAGAA ACAGCTAAAA	3240
AGTTACTGAC TTATGTGAGC ATCAGTTCTC CAAATTTGAC AGAACGCCAG CTGGCGGATT	3300
ACTATTTGGC TGATCCTGAA ATCTATAAAA AAATAGTGGG AGCTCTCCCA AGTGAGAAAC	3360
GCTTGGATTG AGATGGCAAT CGTCTATCCG AATCAGAACT GTATAACAAT GCGGTCGATA	3420
GTGTACAAAC GAGTCAACTA AACTATACAG AGGATGAAAA GAAAGAAATC TATCTTTTTA	3480
GTCAGTTAAA TGCTGTTGGA AACTTTGCGA CAGGAACCAT TGCGACAGAT CCTCTAAATG	3540
ATTCTCAGGT GGTCTGTTAT GCCTCTATTT CAAAGGAGAT GCCTGGCATT AGTATTTCTA	3600
CTTCTTGGGA TAGAAAGGTT TTGGAACTT CCCTTTCTTC TATAGTTGGG AGTGTATCCA	3660
GTGAAAAAGC TGCTCTCCCA GCGGAAGAAG CAGAAGCCTA TCTTAAAAAA GGCTATTCTC	3720
TAAATGACCG TGTAGGAACC TCCTATTTGG AAAAGCAATA TGAAGAGACC TTACAAGGAA	3780
AACGCTCGGT AAAAGAAATC CATCTGGATA AATATGGCAA TATGGAAAGC GTGGATACAA	3840
TTGAGGAAGG TAGTAAGGGA AACAATATCA AACTGACCAT TGATTTGGCT TTCCAAGATA	3900
GCGTGGATGC TTTACTGAAA AGTTATTTCA ATTCTGAGCT AGAAAAAGGT GGAGCCAAAGT	3960
ATTCTGAAGG TGCTATGCA GTCGCCCTTA ACCCAAAAC AGGTGCGGTT TTGTCTATGT	4020
CAGGGATTAA ACATGACTTG AAAACGGGAG AGTTGACGCC TGATTCCTTG GGAACGGTAA	4080
CCAATGTCTT TGTTCAGGT TCGGTTGTCA AGGCGGCGAC CATCAGCTCA GGTGGGAAA	4140
ATGGAGTCTT GTCAGGAAAC CAGACCTTGA CAGACCAGTC CATTGTCTTC CAAGGTTTCA	4200
CTCCCATCAA TTCTTGGTAT ACTCAGGCTT ACGGTTTCATT CCTATCACA GCGGTCCAAG	4260
CTCTGGAGTA TTCATCAAAAT ACCTATATGG TCCAAACAGC CTTAGGTCTT ATGGGGCAAA	4320
CCTATCAACC CAATATGTTT GTCGGCACCA GCAATCTAGA GTCTGCTATG GAGAACTGC	4380
GTTCACCTT TGCGGAATAT GGCTTGGGTA CTGCGACAGG AATTGACCTA CCAGATGAAT	4440
CTACTGGATT TGTTCCTAAA GAGTATAGCT TTGCTAATTA CATTACTAAT GCCTTTGGGC	4500
AGTTTGATAA CTATACGCCG ATGCAGTTGG CTCAGTATGT AGCAACTATT GCAAATAATG	4560
GTGTTCTGT GGTCTCTCGT ATGTTGAAG GCATTTATGG TAATAATGAT AAGGGAGGAC	4620
TGGGTGACTT GATTACAGCA CTGCAACCGA CAGAGATGAA TAAGGTCAAT ATATCCGACT	4680
CCGATATGAG CATCTGTCAC CAAGGTTTTT ATCAGGTTGC CCATGGTACT AGTGGATTGA	4740

793

CAACTGGACG TGCCTTTTCA AATGGTGCCT TGGTATCCAT TAGCGGAAAA ACAGGTACAG	4800
CCGAAAGCTA TGTGGCAGAT GGTCAAGCAAG CAACCAATAC CAATGCGGTG GCCTATGCCC	4860
CATCTGATAA TCCCCAAATC GCTGTCGCAG TGGTCTTTCC TCATAATACC AATCTAACAA	4920
ATGGTGTAGG ACCTTCCATT GCGCGTGACA TTATCAATCT GTATCAAAAA TACCATCCAA	4980
TGAATTAGAA AGGAAATTAT GCTTTATCCA ACACCTATTG CCAAGTTGAT TGACAGTTAT	5040
TCTAAGTTAC CAGGTATCGG GATTAAGACG GCTACGCGTC TGGCCTTTTA TACGATTGGG	5100
ATGTCTGCTG ATGATGTCAA TGAATTTGCA AAAAATCTCC TTTCTGCTAA GAGAGAATTG	5160
ACATATTGTT CTATTTGTGG ACGTTTGACA GACGACGATC CTTGTTCTAT CTGTACTGAT	5220
CCGACTCGTG ACCAGACAAC AATTTTAGTT CTTGAGGATA GTAGAGATGT GGCAGCCATG	5280
GAAATATATCC AAGAATACCA TGGACTCTAT CATGTCCTTC ATGGCCTCAT TTCTCCTATG	5340
AATGGTATCA GTCGGACGA TATCAATCTC AAGAGCCTTA TGACTCGTCT TATGGATAGT	5400
GAGGTTTCAG AAGTGATTGT GCGGACTAAT GCTACAGCGG ATGGTGAAGC GACTTCCATG	5460
TATCTTTCAC GTTTGTCAA GCCGGCTGGT ATCAAGGTTA CGCGTCTAGC ACGAGGCTCT	5520
GCTGTGGGAG CGGACATGTA GTATGCGGAC GAAGTGACAC TCTTACGAGC CATTGAAAAAT	5580
CGGACAGAGT TGTAAGTGA GGCAAAATTA CGAACTCCAT TCATTTATAA AAAATCAAAG	5640
AGGCTGAAAA TCGTTCCTAT CGGCCTCTTT TTGTATAGTG TGATGAGTAG GCTCAGGTTC	5700
AAGTTTTAAA AAACCAAGCA AATATGATAT ACTAAAGAGC GAGTATTCTA GTAGAATTAG	5760
GACAAATAAT ATGAAACAAA CGATTATTCT TTTATATGGT GGACGGAGTG CGGAACGCGA	5820
AGTCTCTGTC CTTTCAGCTG AGAGTGTCAT GCGTGCGGTC GATTACGACC GTTTCACAGT	5880
CAAGACTTTC TTTATCAGTC AGTCAGGTGA CTTTATCAAA ACACAGGAAT TTAGTCATGC	5940
TCCGGGGCAA GAAGACCGTC TCATGACCAA TGAAACCATT GATTGGGATA AGAAAGTTGC	6000
ACCAAGTGCT ATCTACGAAG AAGGTGCAGT GGTCTTTCCA GTCCTTCACG GGCCAATGGG	6060
AGAAGATGGC TCTGTTCAAG GATTCTTGGA AGTTTGTAAA ATGCCTTACG TTGGTTGCAA	6120
CATTTTGTCA TCAAGTCTTG CCATGGATAA AATCACGACT AAGCGTGTTC TGGAACTCTGC	6180
TGGTATTGCC CAAGTTCCTT ATGTGGCTAT CGTTGAAGGC GATGATGTGA CTGCTAAAAT	6240
CGCTGAAGTG GAAGAAAAAT TGGCTTATCC AGTCTTCACT AAGCCGTCAA ACATGGGGTC	6300
TAGTGTGGT ATTTCTAAGT CTGAAAACCA AGAAGAACTC CGTCAAGCCT TAAAACCTGC	6360
CTTCCGATAT GACAGCCGTG TCTTGGTTGA GCAAGGAGTG AATGC	6405

(2) INFORMATION FOR SEQ ID NO: 108:

794

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11309 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 108:

CGAGCTCGGG TACCGGGATT TTAAGGAGTT TGATATGTAT AACCTATTAT TAACCATTTT	60
ATTAGTATTA TCTGTTGTGA TTGTGATTGC AATTTTCATG CAACCAACCA AAAACCAATC	120
CAGCAATGTA TTTGATGCCA GTTCAGGTGA TTTGTTTGAA CGCAGTAAAG CTCGCGGTTT	180
TGAAGCTGTA ATGCAGCGTT TGACAGGGAT TTTAGTCTTT TTCTGGCTAG CCATTGCCTT	240
AGCATTGACG GTATTATCAA GTAGATAAGA AAATAATGGG CAGGACTAGG TCTTTGCCCTC	300
TTTTTATTTT TAAAGGATGT TTGAGAAGGT TTTACAGTAA AAGAAAATTA AAAAATCTAG	360
AAAGAAAATA TGAAAGATAG AATAAAAGAA TATTTACAAG ACAAGGGAAA GGTGACTGTT	420
AATGATTTGG CTCAGGCTTT GGGAAAAGAC AGTTCCAAGG ATTTTCGTGA GTTGATTAAA	480
ACCTTGTCCT TAATGGAAAG AAAGCACCAA ATTCGTTTTC AAGAAGATGG TAGTCTGACA	540
TTAGAAATTA AGAAAAACA TGAGATTACC CTCAAGGGGA TTTTTCATGC CCATAAAAAT	600
GGCTTTGGCT TTGTTAGTCT GGAAGGCGAG GAGGACGACC TTTTGTAGG GAAAAATGAT	660
GTCAACTATG CTATTGATGG TGATACCGTC GAGGTAGTGA TTAAGAAAGT CGCTGACCGC	720
AATAAGGGAA CAGCAGCAGA AGCCAAAATT ATTGATATCC TAGAACACAG TTTGACAACA	780
GTTGTCGGGC AAATCGTTCT GGATCAGGAA AAACCTAAGT ATGCTGGCTA TATTCGTTCA	840
AAAAATCAGA AAATCACTCA ACCGATTAT GTTAAGAAAC CAGCCCTAAA ATTAGAAGGA	900
ACAGAAGTTC TCAAAGTCTT TATCGATAAA TACCCAAGCA AGAAACATGA TTTCTTTGTC	960
GCGAGTGTTC TCGATGTAGT GGGACACTCA ACGGATGTCG GAATTGATGT TCTTGAGGTC	1020
TTGGAATCAA TGGACATTGT ATCCGAGTTT CCAGAAGCTG TTGTTAAGGA AGCAGAAAGT	1080
GTGCCTGATG CTCCTGCTCA AAAGGATATG GAAGGTCGTC TGGATCTAAG AGATGAAATT	1140
ACCTTTACCA TTGACGGTGC GGATGCCAAG GACTTGGACG ATGCAGTGCA TATCAAGGCT	1200
CTGAAAAATG GCAATCTGGA GTTTGGGGTT CACATCGCAG ATGTTTCTTA TTATGTGACC	1260
GAGGGGTCTG CCCTTGACAA GGAAGCCCTT AACCGTCCGA CTTCTGTTTA CGTGACAGAC	1320
CGAGTGGTGC CAATGCTTCC AGAACGACTA TCAAATGGCA TCTGCTCTCT CAATCCCCAA	1380
GTTGACCGCC TGACCCAGTC TGCTATTATG GAGATTGATA AACATGGTCG TGTGGTCAAC	1440
TATACCATTA CACAAACAGT TATCAAGACC AGTTTTCGTA TGACCTATAG CGATGTCAAT	1500

795

GATATCCTAG CTGGCGATGA AGAAAAGAGA AAAGAATATC ATAAAATTGT ATCAAGTATC	1560
GAACTCATGG CCAAGCTTCA TGAAACTTTA GAAAACATGC GTGTGAAACG TGGAGCTCTC	1620
AATTTTGATA CCAATGAAGC GAAGATTTTA GTGGATAAAC AAGGTAAGCC TGTGATATC	1680
GTTCTTCGGC AGCGTGGTAT TGCCGAGCGG ATGATTGAGT CTTTATGTT GATGGCTAAT	1740
GAAACAGTTG CCGAACATTT CAGCAAGTTG GATTTGCCTT TTATCTATCG AATTCACGAG	1800
GAGCCTAAGG CTGAAAAGGT TCAGAAGTTT ATTGATTATG CTTGAGTTT TGGCTTGCGC	1860
ATTTATGGAA CTGCCAGTGA GATTAGTCAG GAGGCACTTC AAGACATCAT GCGTGTGTT	1920
GAGGAGAAC CTTATGCAGA TGTATTGTCC ATGATGCTTC TTCGCTCTAT GCAGCAGGCT	1980
CGTTATTCGG AGCACAATCA CGGCCACTAT GGACTAGCTG CTGACTATTA TACTCACTTT	2040
ACCAGTCCAA TTCGTCGTTA TCCAGACCTT CTTGTTTACC GTATGATTCTG GGATTACGGC	2100
CGTTCTAAGG AAATAGCAGA GCATTTTGAA CAAGTGATTC CAGAGATTGC GACCCAGTCT	2160
TCCAACCGTG AACGTCGTGC CATAGAAGCT GAGCGTGAAG TCGAAGCCAT GAAAAAGGCT	2220
GAGTATATGG AAGAATACGT GGGTGAAGAG TATGATGCAG TTGTATCAAG TATTGTCAA	2280
TTGCTCTCT TTGTGCAATT GCCAAACACA GTTGAAGGCT TGATTCACAT CACTAATCTG	2340
CCTGAATTT ATCATTCAA TGAGCGTGAT TTGACTCTTC GTGGAGAAAA ATCAGGTATC	2400
ACTTCCGAG TGGGTGAGCA GATCCGTATC CGTGTGAAA GAGCGGATAA AATGACTGGA	2460
GAGATTGATT TTTCATTCGT ACCTAGTGAG TTTGATGTGA TTGAAAAAGG CTGAAACAG	2520
TCTAGTCGTA GTGGCAGAGG GCGTGATTCA AATCGTCGTT CGGATAAGAA GGAAGACAAG	2580
AGAAAATCAG GACGCTCAA TGATAAGCGT AAGCATTCAC AAAAAGACAA GAAGAAAAA	2640
GGAAAGAAC CTTTTTACAA GGAAGTAGCT AAGAAAGGAG CCAAGCATGG CAAAGGGCGA	2700
GGGAAAGGTC GTCCACAAA ATAAAAAGGC ACGCCACGAC TATACAATCG TAGATACGCT	2760
AGAGGCAGGG ATGGTCCTGA CTGGAAGTGA AATCAAGAGT GTACGAGCTG CTCGAATTAA	2820
TCTCAAGGAT GGCTTTGCTC AAGTGAAAAA TGGAGAAGTT TGGCTGAGCA ATGTTTATAT	2880
CGCGCCTTAC GAAGAGGGCA ATATCTGGAA CCAGGAACCA GAACGTCGTC GTAAACTCCT	2940
GCTCCATAAA AAGCAAATTC AAAAATTGGA ACAAGAGATC AAAGGGACAG GAATGACCTT	3000
AGTTCCCTT AAGGTCTATA TAAAAGATGG CTACGCTAAG CTTCTTTAG GACTTGCCAA	3060
AGGGAAGCAT GACTATGACA AACGGGAGTC TATCAAACGT CGTGAGCAAA ATCGAGATAT	3120
CGCGCGTGTG ATGAAAGCTG TTAATCAGCG ATAAAAAGAG GAATTGAAAA TGGAAAAATT	3180
AGTTGCCTAT AAACGCATGC CTTTGTGGAA TAAACAAACA ATGCCTGAAG CTGTTGAGCA	3240

796

AAAGCACAAT ACAAAAGTTG GGACTTGGGG GAAAATTACT GTCTTGAAGG GAGCTCTCAA	3300
GTTTATTGAA TTGACAGAAG AAGGGGAAGT TCTAGCTGAA CACCTCTTTG AAGCAGGGGC	3360
AGACAATCCA ATGGCCCAAC CTCAGCCTG GCACCGAGTG GAAGCTGCCA CAGATGATGT	3420
GGAATGGTAC TTGGAATTTT ATTGTAAACC TGAGGATTAT TTTGCTAAAA AATACAATAC	3480
CAATCCTGTT CATTCAGAGG TCCTAGAGGC CATGCAGACA GTGAAACAAG GGAAAGCTTT	3540
GGATTGGGT TGTGGTCAGG GCGTAATTC TCTTTTCTA GCCCAGCAAG ATTTTGATGT	3600
GACGGCTGTA GATCAAAATG GACTAGCTCT TGAAATCTTG CAAAGCATG TGGAGCAGGA	3660
AGATTGGAC ATGCCTGTTG GCCTTACGA TATCAATTCA GCTAGCATTG AACAAGAATA	3720
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TATTCAAAA ATGCAGGAGA AAACCAAGT TGGTGGTTAC AACCTTATCG TTTGTGCCAT	3840
GGACACGGAG GATTATCCTT GCTCGGTTAA CTTCCCATTC ACCTTTAAAG AAGGAGAACT	3900
GGCAGACTAT TACAAGGATT GGAATTGGT TAAGTACAAT GAAAATCCAG GCCATTTGCA	3960
CCGTCGCGAT GAGAATGGCA ATCGTATTCA ACTACGCTTT GCGACCTTAC TAGCTAAGAA	4020
AATCAAGTAA ACACACATGA AGATTAGGAA TTTTCCTGAT CTTTTTCTT TTTTACGAAT	4080
GATATAGAAA AGGAGGGAAT TCATGTTTGT TGCAGAGAT GCTAGGGGAG AATTGGTAAA	4140
TGTGTTAGAG GATAAACTTG AGAAGCAAGC ATACACCTGC CCAGCTTGTG GAGGCCAGCT	4200
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TGATTTTTC TTTGAAATG AAAGTCCAGA ACACCTGGCC AATAAGGAAT CCCTCTATCA	4320
CTGGTTGAAA AAAGAGACAA AGGTTCAATT AGAGTACCCG CTTTCAGAAC TTAACAGAT	4380
TGCGGATGTA TTTGTAAATG GCAATCTAGC TCTAGAAGTT CAGTGTAGTC CCTTGCCTCA	4440
GAAAGTCCTT AAAGAGCGAA GTGAGGGCTA TCGTAGTCAG GGTACCAAG TACTGTGGTT	4500
GCTGGGTCAA AAACGTGGC TCAAGGAGCG TTTGACTCGT CTACAGCAAG GTTTCTTTA	4560
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ACTCAAATAC CTGATTACC AGGATCTCCG CGGTAACTC CATTATCAA TCAAGGAATT	4680
TTCTATGGT CAAGGTAGTT TATTGGAAAT ATTGCGTCTT CCCTATAAGA GACAAAAAAT	4740
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CCTGACTTAT GGACTGAAAG AATGGTATCC ACAAATTCGA CCAATAGTGG GCAAATTTT	4920
CCAGATTGAA CAAGACTTGA CTAGCTATTA TCAGCACTTT TATACCTATT ACCAAAAAAA	4980
TCCTCAAAAT GATTGGCAA AGCTTTATCC ACCAGCCTTT TATCAGCAAT ATTTCTTGAA	5040

797

AAATATGGTA GAATAGAAAG GATGGAGGAA TCTAATGGTA TTACAAAGAA ATGAAATAAA	5100
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CTTAAAAGAT TTAACAGAAC AATTGGAGAC AGTAGCCCAG TATGAAGGCC ATCTCTTGGA	5220
TAGTGC GGAT AACCTACTAG AAATCACTGA ATTTTCTCTT GAAATGGAAC GCCAGATAGA	5280
GAAGCTTTAC GCTTATGCTC ATATGAAGAA TGACCAGGAT ACACGTGAAG CTAAGTATCA	5340
AGAGTACTAT GCCAAGGCCA TGACACTCTA CAGCCAGTTA GACCAAGCCT TTTCATTCTA	5400
TGAGCCTGAA TTTATGGAGA TTAGCGAAAA GCAGTATGCT GACTTTTTAG AAGCTCAACC	5460
AAAGCTGCAG GTTTATCAAC ACTATTTTGA CAAGCTTTTG CAAGGCAAGG ATCACGTTCT	5520
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AAAAATCTTG GGGATTTCAG ATCTCAAGAT GTACGATGTC TACACACCGC TTTATCTGT	6000
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GGAAGAAGTG GAAGACGACG CAACACGCTT TGCTATTCTC AATAACTTCC TAGATGGTTT	6420
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798

TATGGAGAAG GAAGACTACC TCAACGATGC CTTTGCAGTC TTTGAACGCC GTTTAAATGA	6840
GTTTGAAGCC CTTGTTGAAA AATTAGGATT GGCATAAAAT GGTGAATCG TATAGTAAGA	6900
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CTGAATTGAC AGATGAAGCC TATAAGAAAG CCTTTGATGA GTACACTCCA GATGTAACGG	8100
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CAACATTTGT TCAAAGCATT ATCGGAAAAG AATTGCAAGC AGCCAATATC AAGGTTAAGG	8520
ACCAAGCCTT CAAAATATC TTTACCCAAT ATATCGGTGG TGGAGATTCA AGCTCAAGCA	8580